

New extinct Eocene Coleoptera in Baltic amber of Friedhelm Eichmann's collection (Germany)

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A list of 74 identified coleopteran inclusions in Eocene Baltic amber from Friedhelm Eichmann's collection is presented. A new extinct species of Leiodidae, *Anisotoma antediluviana* sp. nov., a new extinct species of Lampyridae, *Photinus kazantsevi* sp. nov., and a new extinct species of Salpingidae, *Sphaeriestes eichmanni* sp. nov., as well the first fossil representatives of the corresponding genera, are described and illustrated from Eocene Baltic amber. The first record of the family Chelonariidae in Baltic amber is provided. A second specimen of *Istrisia vithlandica* Alekseev, 2017 (Salpingidae) [CVIA] is reported and imaged from Baltic amber.

Key words: Leiodidae, Lampyridae, Salpingidae, Chelonariidae, new species, new reports

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INTRODUCTION

A part of a large private collection of Mr. Friedhelm Eichmann (Hanover, Germany), consisting of 71 ambers with inclusions of adult Coleoptera, was received for study in 2018. This very interesting and diverse material was identified at maximal correct level, and a list of the beetles for future systematic studies was compiled. Several specimens represent new extinct coleopteran taxa, and three of them are described in the present paper.

Additionally, one specimen from the private collection of the author (Kaliningrad, Russia) was studied: AWI-013. This inclusion was assigned to the recently described species, *Istrisia vithlandica* Alekseev, 2017. This specimen, representing the second known finding of this spe-

cies in Late Eocene Baltic amber, is imaged, and size variability for the species is reported.

MATERIAL AND METHODS

Totally, 74 beetle specimens in 71 pieces of amber from the private collection of Mr. Friedhelm Eichmann (Hanover, Germany) were examined and identified. The amber pieces were obtained from different commercial sources and likely to be later deposited in the museum of the Geological-Palaeontological Institute [Geologisch-Paläontologisches Museum] of Hamburg University, now: CeNak, Centre of Natural History [Centrum für Naturkunde], Germany. Most probably, all amber pieces [apart from No. 651 with note "Bitterfeld"] originate from the Sambian (Samland) Peninsula (south-eastern shore of the

Baltic Sea, Kaliningrad Region, Russia). The piece No. 651 obviously originated (according to the label) from the Bitterfeld mine (Saxony-Anhalt, Germany).

One specimen AWI-013 from the private collection of the author (Kaliningrad, Russia) [CVIA] and obtained in 2017 was studied additionally for the purpose of more precise definition of several morphological characters of a previously described species. The specimen also originates from Yantarny Settlement (formerly Palmnicken), Sambian (Samland) Peninsula, Kaliningrad Region, Russia.

Photographs were taken using a Zeiss AxioCamC3 digital camera mounted on a Zeiss Stemi 2000 stereomicroscope. Measurements were taken using an ocular micrometer of the stereomicroscope. Images were edited using Adobe Photoshop CS8® software to form the final figure plates.

The following sources were used for the generic attribution and comparison with related taxa: Iablokoff-Khuzorin (1985), Angelini & Perkovsky (1991), Pérez Moreno (2005), Zaragoza-Caballero (1995; 2005; 2015), Luk et al. (2011), Kazantsev (2006; 2012a; 2012b; 2015), Kazantsev & Perez-Gelabert (2008); Perreau (2012); Alekseev (2017). The systematic position of the genera was stated according to Bouchard et al. (2011).

RESULTS AND DISCUSSION

1. List of the identified beetle specimens from the private collection of Mr. Friedhelm Eichmann (taxa given in alphabetical order; original numbers provided in parentheses).

1. Specimens assigned to family or subfamily level: Anthribidae (656); Cantharidae (642, 644, 645, 648); Cerambycidae: Lepturinae Latreille, 1802 (782); Cerylonidae: Ceryloninae Billberg, 1820 (785*); Chelonariidae (767); Chrysomelidae: Eumolpinae Hope, 1840 (637); Cleridae (631, 632); Curculionidae: Scolytinae Latreille, 1804 (638, 748,

754, 755), other subfamilies (649, 650, 651 [Bitterfeld], 652, 653, 654, 655); Nitidulidae (744); Ptiliidae (753); Ripiphoridae [?]: Pelecotominae Seidlitz, 1875 [?] (629*); Scirtidae (643); Scaptiidae: Anaspinae Mulsant, 1856 (751); Staphylinidae: Aleocharinae Fleming, 1821 (783), Omaliinae MacLeay, 1825 (763), Oxytelinae Fleming, 1821 (764), Paederinae Fleming, 1821 (761), Pselaphinae Latreille, 1802 (760, 762), Tachyporinae MacLeay, 1825 (778).

2. Identified genus/tribe without determination of species:

Anthicidae: *Macratrria* Newman, 1838 (635); Armatopodidae: *Electribius* Crwson, 1973 (628); Dermestidae: *Attagenus* Latreille, 1802 (748, 759); Dytiscidae: Hydroporini Erichson, 1837 (597); Latridiidae: *Corticarina* Reitter, 1881 (771); Monotomidae: *Europs* Wollaston, 1854 (776); Mycteridae: *Omineus* Lewis, 1895 (770); Ptinidae: *Microbregma* Seidlitz, 1889 (766), *Xyletinus* Latreille, 1809 (779*), *Xyletinini* Gistel, 1856 (787); Scirtidae: *Cyphon* Paykull, 1799 (780); Scaptiidae: *Anaspis* Geoffroy, 1762 (636), *Scaptia* Latreille, 1807 (749, 750, 777); Zopheridae: *Pycnomerus* Erichson, 1842 (634).

3. Identified species:

Aderidae: *Escalerosia igori* Alekseev & Grzymala, 2015 (640, 767), *Vanonus aestiorum* Alekseev & Grzymala, 2015 (760); Armatopodidae: *Electribius balticus* Hörnschemeyer, 1998 (773); Cantharidae: *Mimoplatycis notha* Kazantsev, 2013 (646, 647); Histeridae: *Xestipyge ikanti* Alekseev, 2016 (757); Latridiidae: *Dienerella nielseni* Reike, 2012 (774); Malachiidae: *Palpatalus baltiensis* Tschernyshev, 2016 (752); Melandryidae: *Abdera hoffeinsorum* Alekseev, 2014 (630, 758); Mycetophagidae: *Crowsonium succinum* Abdullah, 1964 (769, 772, 781, 786); Ptinidae: *Ernobius varmicus* Alekseev, 2014 (633); Ripiphoridae: *Ripidius primordialis* Stein, 1877 (756); Scaptiidae: *Anaspis (Spanisa) horaki* Perkovsky & Odnosum, 2009 (768); Silvanidae: *Cathartosilvanus necromanticus* Alekseev, 2017 (641); Zopheridae: *Xylolaemus sakhnovi* Alekseev & Lord, 2014 (765).

4. Species newly described here:

Lampyridae: *Photinus kazantsevi* sp. nov. (784);
Leiodidae: *Anisotoma antediluviana* sp. nov.
(775); Salpingidae: *Sphaeriestes eichmanni* sp.
nov. (639).

Mostly complete and well-preserved specimens were provided for study. Some exemplars are by far the most common elements of Baltic amber beetle assemblages (e.g. *Crowsonium succinum* from Mycetophagidae, representatives of Scirtidae and Scaptiidae), but several other exemplars are true rarities and have important scientific relevance (e.g. No. 597, 629, 637, 639, 767, 775, 784, 785). Three amber pieces (No. 748, 760, 767) contain two different co-included beetles each (therefore, the numbers are twice presented in the list). For the first time, a representative of family Chelonariidae in Baltic amber can be reported (No. 767, see below). The specimen is in poor condition and further determination seems to be impossible with light microscopy only. Three new extinct species (No. 639, 775, 784) are described below. Descriptions of several other taxa will be probably done in the next years (marked with an asterisk in the list) or, in case of diverse and therefore "difficult" families as Curculionidae, Staphylinidae, and Cantharidae, will need the attention of specialists.

2. Systematic part

Family Leiodidae Fleming, 1821

Subfamily Leiodinae Fleming, 1821

Tribe Agathidiini Westwood, 1838

Genus *Anisotoma* Panzer, 1797

Anisotoma antediluviana sp. nov.

(Figs. 1–5)

Material examined. Holotype: No. 775 in collection F. Eichmann, Hanover, Germany. Adult, female (tarsal formula 4-4-4; apical part of genitalia extruded). The complete beetle inclusion is preserved in a small polished piece of transparent amber with an orange shade and with approximate dimensions 10×7×4 mm without any further fixation. Syninclusions are absent, amber matrix contains numerous small particles of detritus.

Type horizon. Baltic amber, Upper or Mid-Eocene.

Type locality. Sambian (Samland) Peninsula, Kaliningrad Region, Russia.

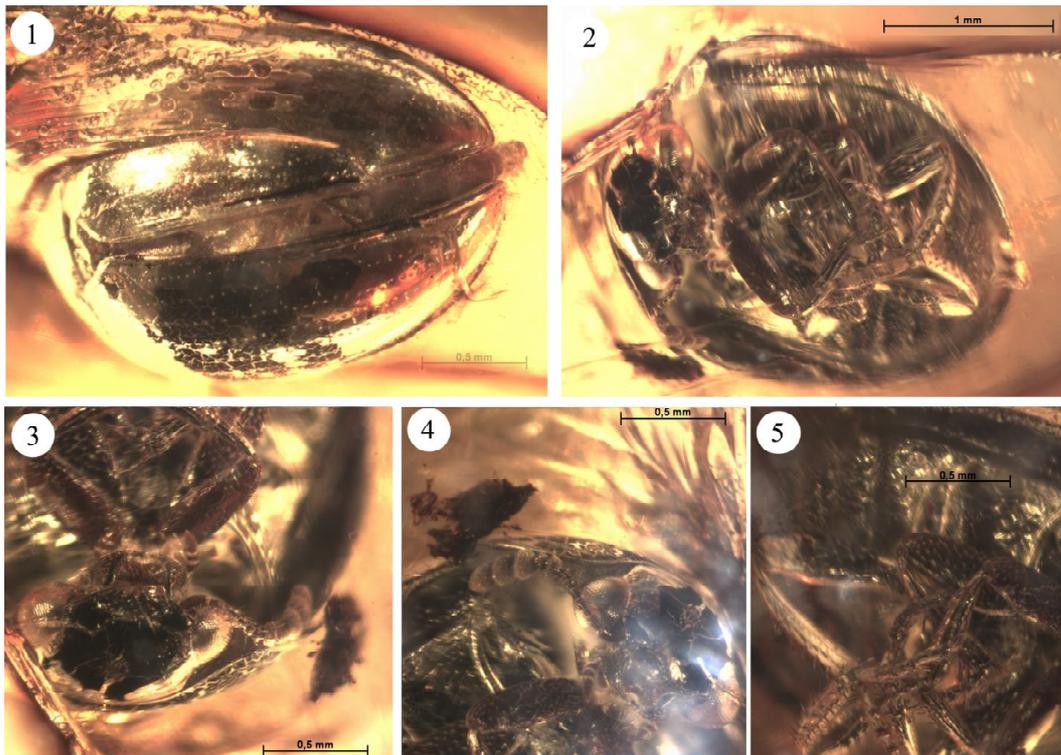
Description. Total body length 2.5 mm (measured dorsally, the beetle is partially rolled), maximum body width 1.8 mm; pronotum 0.9 mm long (measured laterally), maximum width 1.7 mm (at base); elytral length 2.2 mm; maximum combined width of elytra (at anterior third) 1.8 mm. Habitus rounded, conglobate, glabrous, bare and convex dorsally, finely pubescent at sides on pronotum and elytra; body and appendages appear uniformly black, without discernible microsculpture.

Head very fine and sparsely punctured; distance between punctures equal to 2.0–8.0× diameter of puncture. Antennal grooves on ventral side of head present. Clypeus evenly convex with anterior margin shallowly emarginated. Temples not forming angulate projection posteriorly eye. Antennae distinctly clubbed, consisting of 11 antennomeres. Antennal club 5-segmented, interrupted (antennomere 8 the shortest). Relative length ratios of antennomeres equal to 10–5–7–4–5–5–5–3–6–6–10; relative width ratios of antennomeres 7–11 equal to 10–7–11–11–10. Last maxillary and labial palpomeres elongate and acute.

Pronotum finely punctured, more evenly than head, distance between punctures equal to 2.0–4.0× diameter of puncture. Pronotal posterior angles obtuse in lateral view; anterior angles rounded; lateral pronotal sides almost straight.

Each elytron with 8 complete basally regular punctate striae not arranged in pairs. Rows a little irregular on the apical third. The ninth row partially connected with side margin of elytron near middle. Distance between punctures in row equal to 1.0–2.0× diameter of puncture. Elytral intervals nearly impunctate. Elytral suture distinct on the apical two-thirds of elytra. Scutellar shield triangular, as wide as long. Tarsal formula 4-4-4.

Differential diagnosis. The new species from Baltic amber is diagnosed as belonging to the

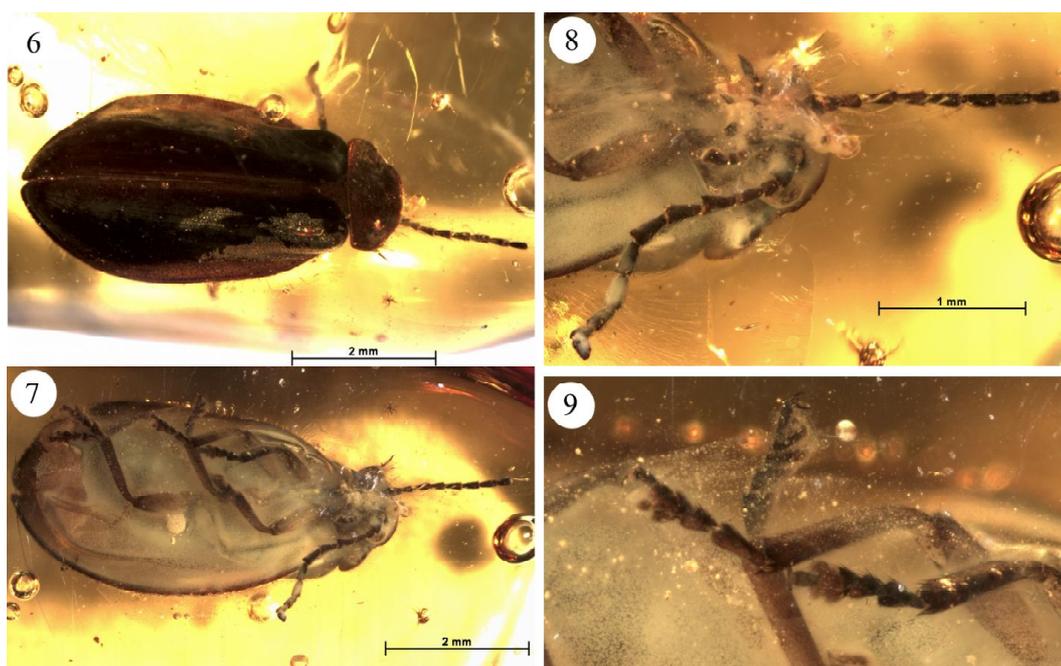


Figs. 1–5. *Anisotoma antediluviana* sp. nov. Holotype; No. 775 [Friedhelm Eichmann collection]: 6 – Habitus, dorsal view; 7 – Habitus, ventral view; 8 – Forebody, ventral view; 9 – Head and antenna, ventral view; 10 – Legs, ventral view.

genus *Anisotoma* based on the following morphological characters: 5-segmented interrupted antennal club, posterior pronotal angles distinct, temples non-angulose. Species of the genus *Anisotoma* Panzer, 1797 are widely distributed in Nearctic, Neotropic and Palaearctic biogeographical realms. At least thirty species of *Anisotoma* inhabit the present-day Palaearctic Region (Perreau 2004), seven of which are known from Europe: *A. axillaris* Gyllenhal, 1810, *A. castanea* (Herbst, 1792), *A. glabra* (Fabricius, 1787), *A. graminis* (Gistel, 1857), *A. humeralis* (Fabricius, 1792), *A. lucifuga* Gistel, 1857, and *A. orbicularis* (Herbst, 1792). Resembling recent European *Anisotoma* in visible morphology, *A. antediluviana* sp. nov. differs from extant spe-

cies in the following combination of characters: elytral rows not arranged in groups, whole body concolorous black, dorsum lacking microsculpture and vestiture, body length small, antennomere 3 longer than antennomere 2, all tarsi of female 4-segmented.

Only one species of an extinct genus from the subfamily Leiodinae, *Tafforeus cainosternum* Perreau, 2012, has been described from Baltic amber to date. *Anisotoma antediluviana* sp. nov. clearly differs from this related Eocene beetle (Perreau 2012) in the transverse antennomere 8 (reduced but not discoid in *Tafforeus*), in the glabrous pronotal and elytral surface (*Tafforeus* possesses transversal pronotal microreticulation



Figs. 6–9. *Photinus kazantsevi* sp. nov., Holotype; No 784 [Friedhelm Eichmann collection]: 13 – Habitus, dorsal view; 14 – Habitus, ventral view; 15 – Head, antenna and palpi, ventral view; 16 – Middle and posterior legs, ventral view.

and elytral striolation) and in the ventral antennal grooves on head (absent in *Tafforeus*).

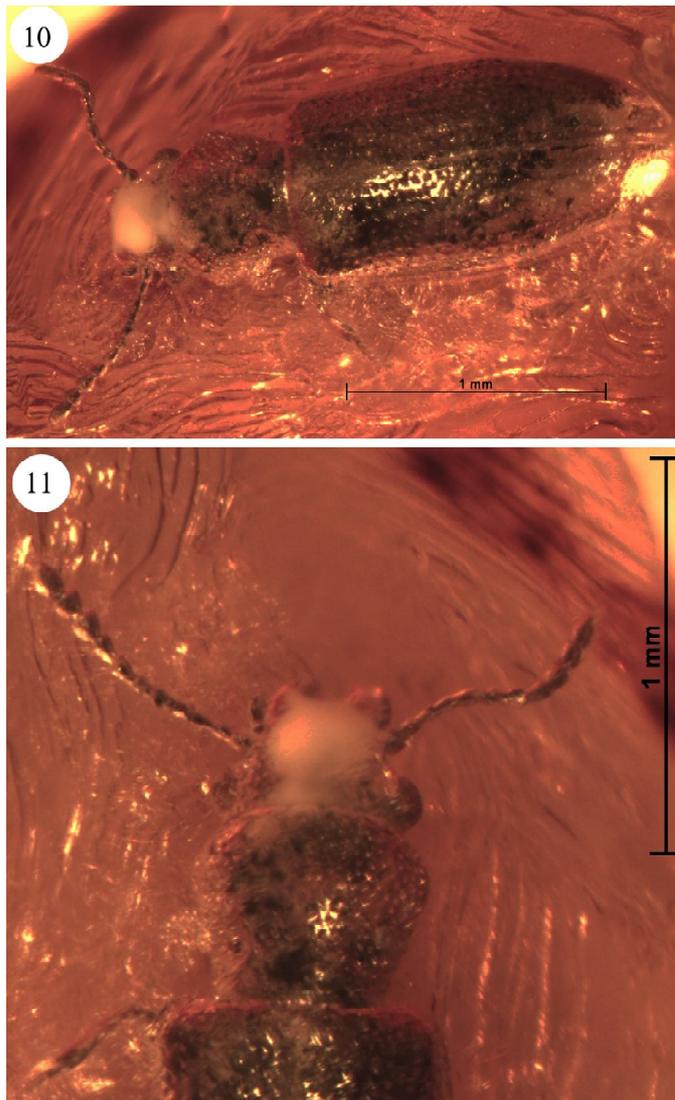
Derivatio nominis. The epithet of the new species is the Latin adjective “antediluvianus, -a, -um” (antediluvian, i.e. archaic, ancient, extinct).

Note. The representatives of the genus *Anisotoma* are quite monotonous in external morphology and are mainly distinguished with the use of genital structure. Unfortunately, the reproductive system is internal and obscured in this specimen. *Anisotoma antediluviana* sp. nov. is known only from a single female holotype; thus, the male is unknown so far. The extant *Anisotoma* species have sexually dimorphic tarsal formula (which could be in females 4-4-4 or 5-4-4) and the male of newly described species should, analo-

gously to recent congeners, have the tarsal formula 5-5-4.

Family Lampyridae Rafinesque, 1815
Subfamily Lampyrinae Rafinesque, 1815
Tribe Lucidotini Lacordaire, 1857
Subtribe Photinina LeConte, 1881
Genus *Photinus* Laporte de Castelnau, 1833
Photinus kazantsevi sp. nov.
(Figs. 6–9)

Material examined. Holotype: No. 784 in collection F. Eichmann, Hanover, Germany. Adult, sex unknown. The almost complete beetle inclusion (two last right antennomeres are absent) embedded in an oval polished piece of transparent yellow amber with approximate dimensions 18×8×3 mm without any further fixation. Syninclusions are represented by gas vesicles and fagacean trichomes.



Figs. 10–11. *Sphaeriestes eichmanni* sp. nov. Holotype; No. 639 [Friedhelm Eichmann collection]: 1 – Habitus, dorsal view; 2 – Forebody, dorsal view.

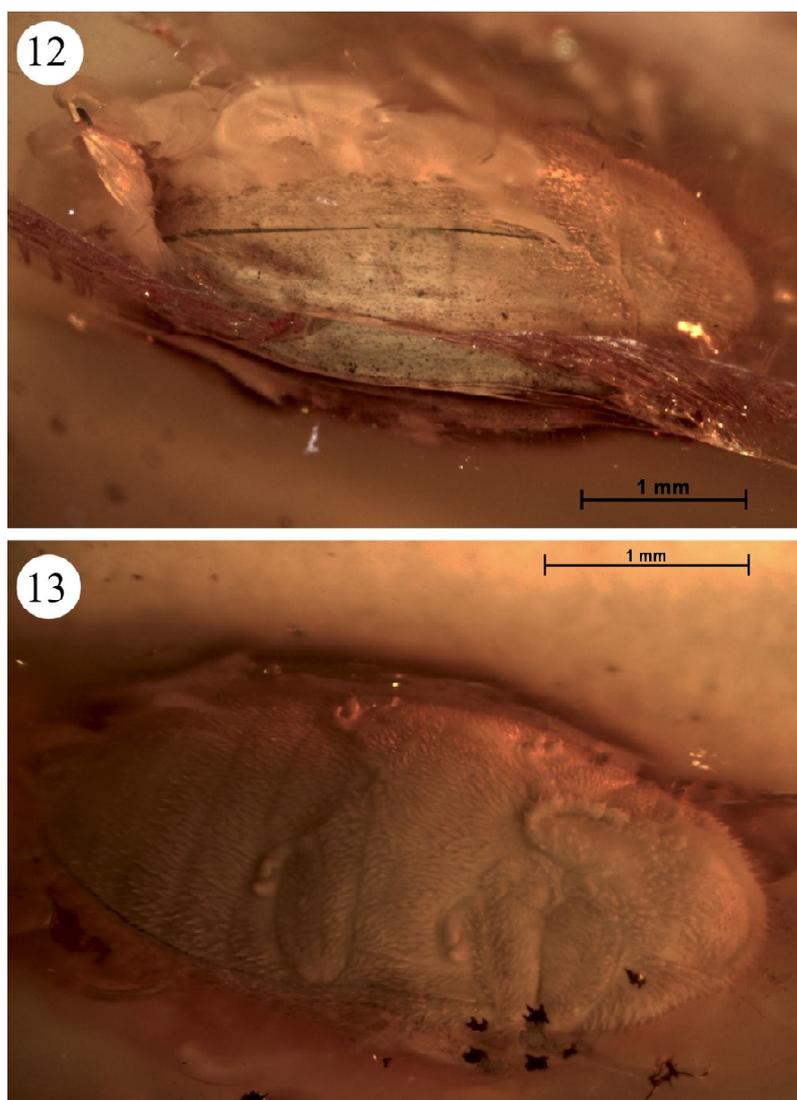
Type horizon. Baltic amber, Upper or Mid-Eocene.

Type locality. Sambian (Samland) Peninsula, Kaliningrad Region, Russia.

Description. Total body length 5.6 mm, maximum body width 2.8 mm; pronotum 0.8 mm long, maximum width 1.6 mm; elytral length 4.8 mm; combined width of elytra in humeral area 1.75 mm. Habitus elongate, elliptic, flattened, with explanate margins; body bicolour: rufous (head,

prothorax, most part of legs, scutellar shield, lateral and sutural margins of each elytron) and dark, almost black (median part of elytra, antennae, tarsi, and protibiae).

Head transverse, concealed (completely covered by pronotum). Eyes spherical, relatively small, separated by distance 2.2× longer than diameter of one eye. Maxillary palpomere long, 4-segmented. Ultimate labial and maxillary palpomeres



Figs. 12–13. Chelonariidae genus indet., Specimen No 767 [Friedhelm Eichmann collection]: 11 – Habitus, dorso-lateral view; 12 – Habitus, ventro-lateral view.

triangular, widened distally. Antennal sockets narrowly separated, located between eyes. Antenna 11-segmented, moderately long (extending to second third of elytra), filiform, weakly serrate and flattened in medial part (antennomeres 3–7). Pedicel (antennomere 2) subequal in length and width. Antennomeres 1–2 and 8–10 cylindrical, antennomere 11 spindle-shaped, truncate. Relative length ratios of antennomeres equal to 14–8–14–15–18–18–18–18–15–12–15.

Pronotum transverse, about twice as wide as long, overall trapezoidal, narrowed anteriorly, without longitudinal carina or groove in the middle, with widely explanate lateral margins and raised dick, finely punctured. Posterior angles rounded, obtuse. Anterior margin rounded, projected, recurved anteriorly. Posterior margin almost straight, margined.

Elytra shortly pubescent, widely explanate laterally and flattened at sides, relatively convex medially, ovoid, widest in the apical third, with prominent humeri and humeral costae noticeable in basal one half. Elytral apices independently rounded. Elytral punctation irregular, fine, dense, not forming rows. Metathoracic wings fully developed. Scutellar shield large, emarginate at apex.

Legs slender; trochanters elongate; tibiae narrow, weakly curved proximally, slightly widened distally, with one short acute spur; tarsomeres 2 slightly widened, tarsomeres 3–4 with fleshy plantar pads, bilobed; claws simple (not bifid), mesotarsal claws with a small broad tooth at base, metatarsal claws widened at base, without tooth.

Differential diagnosis. The assignment to *Photinus* is based on the combination of the following characters: (1) head completely covered by pronotum; (2) antennae quite long, with weakly serrate and compressed segments 3–7; (3) second antennomere as long as wide; (4) pronotum transverse, without carina or groove, with explanate margins and raised dick; (5) elytra without ridges, with widely explanate margins, pale-bordered contrasting with dark median area; (6) penultimate tarsomere bilobed and bearing fleshy pad; (7) claws with basal tooth in mesotarsi, simple in metatarsi. All these characters let to separate the specimen No. 784 from similar genera such as the American genera *Ellychnia* Blanchard, 1845, *Pyropyga* Motschulsky, 1852, and *Lucidota* Laporte de Castelnau, 1833, or the Asian genus *Lucidina* Gorham, 1883.

Nonetheless, the precise number and shape of abdominal ventrites, as well as ventral parts of body and mouthparts are not clearly visible in the specimen. The presence of the photic organ is not clear too: it appears to be absent or small, but the medial part of middle ventrites is almost completely obscured. The structure of the genital and reproductive system, important for differentiation, cannot be studied with light microscopy only. The generic attribution of this new species

should be considered as provisional at the moment.

The diverse and species-rich firefly genus *Photinus* is widely distributed in the Nearctic and Neotropic with more than 300 species (Zaragoza-Caballero & Viñolas 2018). Only the introduced *Photinus immigrans* Zaragoza-Caballero & Viñolas 2018 is established in present-day Europe. *Photinus kazantsevi* sp. nov. resembles several recent representatives of the genus *Photinus* from Central America with elliptic, non-parallel sided body shape (e.g. *P. chamelensis* Zaragoza-Caballero, 2005 or *P. magdalenae* Zaragoza-Caballero, 2015) but it can be separated by the following character combination: comparatively small size (5.6 mm), small eyes, long antennae, tarsomeres 3–4 bilobed with fleshy plantar pads, body bicolour with rufous thorax and elytral margins.

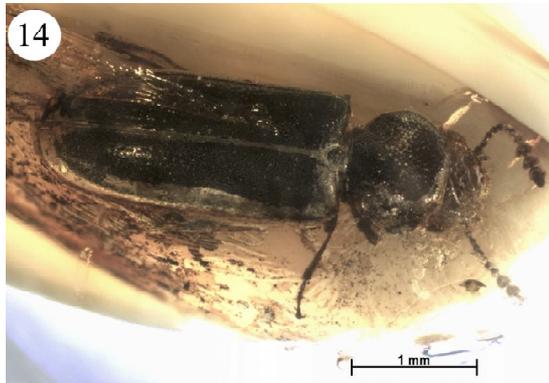
Only three species assigned to Lampyridae (belonging to subfamilies Luciolinae and Otoretinae) have been described from ambers to date: *Eoluciola varang* Kazantsev, 2012 (Baltic amber), *Protoluciola albertalleni* Kazantsev, 2015 (Burmese amber), and *Electotreta rasnitsyni* Kazantsev, 2012 (Baltic amber). *Photinus kazantsevi* sp. nov. clearly differs from these taxa in body size (2.5 mm in *Protoluciola albertalleni*, 2.3 mm in *Electotreta rasnitsyni*, 6.6 mm in *Eoluciola varang*), elytra non-costate and without punctuation arranged in rows (three prominent elytral costae in *Eoluciola varang*, ten rows of large rounded impression on the elytral basis in *Electotreta rasnitsyni*), lesser eye size, different body shape, antennal length and structure, and other characters.

Derivatio nominis. Patronymic. This species is named after Dr. Sergey V. Kazantsev (Moscow, Russia) in honour of his valuable contributions to the study of recent and fossil Lampyridae, Lycidae, and Cantharidae.

Family Salpingidae Leach, 1815
 Subfamily Salpinginae Leach, 1815
 Genus *Sphaeriestes* Stephens, 1829
Sphaeriestes eichmanni sp. nov.

(Figs. 10–11)

Material examined. Holotype: No. 639 in collection F. Eichmann, Hanover, Germany. Adult, sex



Figs. 14–16. *Istrisia vithlandica* Alekseev, 2017. Specimen No. AWI-013 [CVIA]. Habitus: 1 – Dorsal view; 2 – Ventral view; 3 – Forebody, ventral view

unknown. The beetle inclusion is embedded in a polished piece of transparent amber with an orange shade and with approximate dimensions 33×20×5 mm without any further fixation.

Syninclusions are absent. Frontal area and base of mandibles of the beetle is obscured by milky foam, the ventral part is almost invisible because of layered structure of the amber matrix.

Type horizon. Baltic amber, Upper or Mid-Eocene.

Type locality. Sambian (Samland) Peninsula, Kaliningrad Region, Russia.

Description. Total body length 2.4 mm, maximum body width 0.85 mm; pronotum 0.5 mm long, maximum width 0.6 mm; elytral length 1.5 mm; maximum combined width of elytra 0.85 mm. Habitus elongate, glabrous, slightly flattened dorsally; body appears uniformly dark, tarsi and tibiae rufous.

Head prognathous, non-rostrate, transverse (about 1.3 times wider between eyes than long). Eyes large, strongly protuberant, hemispherical and finely faceted. Interfacetal setae not apparent. Head margined anterolaterally; lateral keels almost straight and discernible from antennal insertion till anterior angle of eye. Apical part of mandibles visible from above, inner mandibular surface with small acute denticles. Temples short, about 4 times shorter than eye diameter. Head punctation coarse and dense; distance between punctures equal to 0.5–1.0 puncture diameter. Maxillary palpus short; palpomere 4 spindle-shaped, 1.5 times longer than penultimate palpomere. Antennal insertions not concealed. Antennae extending to humeri; 11-segmented. Antennal club loose, weakly distinct, bearing fine erect setation, 5-segmented. Scape longer than wide, wider than antennomeres 2–6; pedicel cylindrical, twice longer than wide; antennomeres 3–6 elongate and slightly conical; antennomeres 7–10 triangular, progressively widened; antennomere 11 the longest, egg-shaped, almost twice as long as wide.

Pronotum slightly transverse (about 1.2 times as wide as long), sub-cordiform, widest before middle and strongly narrowed posteriorly; pronotal base distinctly narrower than anterior margin of elytra; with two symmetrical shallow oval impressions latero-basally. Anterior angles widely rounded; posterior angles obtuse. Posterior margin straight, finely bordered; anterior margin slightly convex; lateral margins divergent in anterior third and almost straight constricted posteriorly; lateral margins without bordering and denticulation. Punctuation of pronotal disc slightly larger than head punctuation and equally dense.

Scutellar shield in form of equilateral triangle, as long as wide. Elytra elongate, about 1.8 times as long as wide combined, 3 times as long as pronotum, slightly wider after middle. Humeral angles rounded. Elytral punctures deep, arranged in longitudinal rows; punctuation sparser and finer on the apical part. Hind wings apparently well developed, partially exposed.

Abdomen with five visible ventrites; sparsely covered with shallow, fine punctuation. Relative length ratios of ventrites 1–5 equal to 18–12–10–7–6.

Legs moderately short. Tibiae slender, straight. Tarsal formula 5–5–4. All tarsomeres simple, non-lobed. Claws simple, falcate, symmetrical.

Differential diagnosis. The new species is assigned to the genus *Sphaeriestes* based on the following characters: head not developed into a rostrum anteriorly; pronotum with side margin simple; frons trapezoid; anterolateral keel on head almost straight and extending before eye; antenna with loose 5-segmented club; pronotum constricted at base, last maxillary palpomere spindle-shaped.

Three species of the subfamily Salpinginae have been described from Baltic amber to date: *Protolisodema ulrikae* Alekseev 2013, *Salpingus henricusmontemini* Alekseev, 2013, and *Istrisia vithlandica* Alekseev, 2017. *Sphaeriestes eichmanni* sp. nov. is the first rep-

resentative of the genus in Baltic amber. It differs from other Eocene salpingid amber beetles in the combination of the main generic characters mentioned above.

Seven species of *Sphaeriestes* are known in the present-day Palaearctic Region (Pollock & Löbl 2008): *S. aeratus* (Mulsant, 1859), *S. bimaculatus* (Gyllenhal, 1810), *S. castaneus* (Panzer, 1796), *S. exsanguis* (Abeille de Perrin, 1870), *S. impressus* Wollaston, 1857, *S. reyi* (Abeille de Perrin, 1874), and *S. stockmanni* (Biström, 1977). The newly described fossil species can be distinguished from the modern above listed representatives based on the following set of characters: temples very short, body uniformly dark, antennae with 5 enlarged club-forming segments, pronotum with two small oval basal impressions, body length small (2.4 mm), elytra even and without basal impressions, head and pronotum coarsely and densely punctured.

Derivatio nominis. Patronymic, this new species is named after Friedhelm Eichmann (Hanover, Germany), collector of this remarkable Baltic amber fossil.

Note. Several external characters (form of labrum, visibility of mandibular base, form of epipleura, details of ventral morphology) helpful for indisputable generic placement are not clearly visible on the specimen; therefore, the attribution is made with some reservations.

3. Additional fossil records

Family Chelonariidae Blanchard, 1845

Genus indet.

(Figs. 12–13)

Material examined. No. 767 in collection F. Eichmann, Hanover, Germany. Adult. The complete beetle inclusion is preserved in a flat polished piece of transparent amber with a yellow-orange shade and with approximate dimensions 17×15×4 mm without any further fixation. Syninclusions are represented by one specimen

of *Escalerosia igori* Alekseev & Grzymala, 2015 (Aderidae) and numerous small detritus particles. The beetle is covered by an opaque whitish layer.

Type horizon. Baltic amber, Upper or Mid-Eocene.

Type locality. Sambian (Samland) Peninsula, Kaliningrad Region, Russia.

Note. The specimen No. 767 is 3.9 mm long and has a seed-shaped body, deflexed head, legs retracted in ventral grooves, ventrally lobed penultimate tarsomeres as characterised for representatives of the family Chelonariidae. The beetle seems to be close to *Chelonarium* Fabricius, 1801, but it cannot be named and formally described at present due to poor visibility. The use of synchrotron X-ray micro-CT observations is recommended for further study of the specimen.

Family Salpingidae Leach, 1815

Subfamily Salpinginae Leach, 1815

Genus *Istrisia* Lewis, 1895

Istrisia vithlandica Alekseev, 2017

(Figs. 14–16)

Material examined. No. AWI-013 in collection V. Alekseev, Kaliningrad, Russia [CVIA]. Adult, sex unknown. The complete beetle inclusion is preserved in a polished piece of transparent yellow amber embedded in a block of GTS-polyester resin with approximate dimensions 18.0×7.0×5.5 mm. Syninclusions are represented by stellate fagaceous trichomes.

Type horizon. Baltic amber, Upper or Mid-Eocene.

Type locality. Yantarny Settlement (Palmnicken), Sambian (Samland) Peninsula, Kaliningrad Region, Russia.

Note. The original description of the species (Alekseev 2017) is provided with the following remarks: “the elytral integument dorsally is roasted and details of elytral punctuation are not well discernible because processing of amber with the inclusion in an autoclave. The dark monochrome body colour of the holotype specimen may be result from the discolouration during the “improving” of the amber piece, too”. The

holotype length is 2.85 mm. The second studied exemplar [AWI-013] of the extinct *Istrisia vithlandica* is better preserved than the holotype, it is distinctly larger (body length 3.75 mm), integument dark brown, elytral punctuation discernible and definitely “confused”. The size difference between specimens should be considered as intraspecific variation of a single species. Thus, a little questionable characters of the holotype are proved and the size variability of the extinct species is established based on the presented material.

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