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Two new fossil representatives of Eurypinae (Coleoptera: Tenebrionoidea: Mycteridae) from Eocene Baltic amber and placement of *Neopolypria nigra* Abdullah, 1964

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Abstract

Two new species of Eurypinae (Coleoptera: Mycteridae) are described from Eocene Baltic amber from the Kaliningrad Region, Russia: *Glesoconomorphus nachzehrer* **gen.** et **sp. nov.** and *Omineus febribilis* **sp. nov.** The first new fossil taxon displays affinity to recent members of the Neotropical *Conomorphus-Stilpnonotus* lineage, and the second species was placed into the present-day eastern and southeastern Asian genus *Omineus* Lewis. The fossil *Neopolypria nigra* Abdullah, 1964 (Baltic amber) is moved from Mycteridae and placed as *incertae sedis* within Tenebrionoidea Latreille, 1802.

Key words: *Glesoconomorphus nachzehrer*, *Omineus febribilis*, new taxa, Paleogene, fossil resin

Introduction

The family of palm and flower beetles (Mycteridae Oken, 1843) comprises 183 described species assigned to 33 genera within three subfamilies: Mycterinae (1 genus, 17 species), Hemipeplinae Lacordaire, 1859 (2 genera, 35 species), and Eurypinae Thomson, 1860 (30 genera, 147 species) [compiled according to Pollock (1997, 1999, 2005, 2006, 2010, 2012, 2016), Pollock *et al*. (2000), Kirejtshuk & Nel (2009), Ivie & Pollock (2012), Pollock & Majka (2012), Young & Saitô (2017), present paper]. Mycteridae are distributed worldwide in tropical, subtropical and temperate areas, but are most diverse in the Neotropical Realm, especially in Brazil (Pollock 2006). The most speciose genera are *Hemipeplus* (34 species), *Physcius* (22 species), *Mycterus* (17 species), *Trichosalpingus* (14 species), *Thisiomorphus* (12 species), and *Conomorphus* (10 species). The remaining 27 genera contain a total of 74 species.

Fossil mycterid beetles are generally poorly known. Until now, three fossil Cenozoic representatives of Mycteridae were described (Kirejtshuk & Nel 2009): (1) *Mycterus molassicus* Heer, 1847 from Upper Miocene of Öhningen, Germany; (2) *Bertinotus gallicus* Kirejrshuk & Nel, 2009 from Lowermost Eocene amber of Oise, France; and (3) the controversial *Neopolypria nigra* Abdullah, 1964, described from Middle-Upper Eocene Baltic amber having the family placement questionable and discussed separately below. Additionally, one specimen of a mycterid beetle from Baltic amber was reported by Kubisz (2000); this single exemplar of "Lacconotinae" (= Eurypinae) is deposited in the Baltic amber collection of the Museum of Natural History of the Institute of Systematics and Evolution of Animals in Kraków (Poland). Possibly, representatives of the family are not rare, but have been unidentified or confused with similar looking beetle families (e.g. Cleridae, Salpingidae and Aderidae). In fact, it is difficult to establish a general adult-stage diagnosis for the entire family, even for just the recent representatives, since the three subfamilies of Mycteridae are significantly different from one another morphologically. Instead, mycterid larvae show greater similarity to each other at the subfamily level than do the adults (Pollock 2010).

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In the current paper, descriptions of two new fossil eurypine beetles from Early Tertiary Baltic amber are provided. The family placement of *Neopolypria nigra* Abdullah is discussed.

Material and methods

The material examined for this study is deposited in the following collections, as indicated in the text by the following acronyms:

BMNH Natural History Museum (British Museum, Natural History) (London, United Kingdom)
CCHH Private collection of Christel and Hans Werner Hoffeins (Hamburg, Germany), deposited in the Senckenberg Deutsches Entomologisches Institut (Müncheberg, Germany) [SDEI]
CVIA Private collection of Vitalii I. Alekseev (Kaliningrad, Russia); amber pieces will subsequently be deposited in the collection of the A.A. Borissiak Paleontological Institute of Russian Academy of Sciences (Moscow, Russia) [PIN].

Two examined amber pieces (containing the type specimens from CCHH and CVIA) are embedded in blocks of GTS-polyester resin following the protocol described in Hoffeins (2001). The non-type specimen from CVIA [AWI-059] is polished only and is preserved without supplementary fixation.

Reconstructions were based on free-hand drawings made during examination of the original specimens. These line drawings were subsequently scanned and edited using Adobe Photoshop CS8. Photographs were taken with a Zeiss AxioCamICc 3 digital camera mounted on a Zeiss Stemi 2000-stereomicroscope.

Systematic Palaeontology

Pollock (2010) provided a detailed description of the family Mycteridae. Careful comparison of the amber inclusions with this description and other papers (Pollock 1997, 1999, 2016; Ivie & Pollock 2012) confirms the placement of all three examined specimens in the subfamily Eurypinae of Mycteridae. These specimens share the following combination of morphological characters: body not flattened; head not rostrate; eyes large; labrum exposed; antennal insertions not concealed by lateral extension of frons; terminal maxillary palpomere subsecuriform; subapical antennomeres short; prothorax without lateral carina; pronotum with paired basal impressions; elytra setose and irregularly punctate; procoxal cavities open; mesocoxal cavities closed; procoxae subconical and contiguous; tarsal formula 5-5-4; penultimate tarsomere lobed; and tarsal claws with basal swelling or distinct basal tooth.

Additionally, the beetles under study differ from the representatives of Mycterinae in the non-campanulate pronotal shape, and scutellar shield not raised above level of elytra; and from representatives of Hemipeplinae by the dorsally convex body, non-cordate pronotum, and absence of transverse setal pad along anterior margin of pronotum.

Family Mycteridae Oken, 1843

Subfamily Eurypinae Thomson, 1860

Genus *Glesoconomorphus* gen. nov.

Type species: *Glesoconomorphus nachzehrer* sp. nov.

Diagnosis. *Glesoconomorphus* **gen. nov.** can be differentiated from all extant Eurypinae by the following combination of characters: ocular groove distinct; eye without intrafacetal setae; head without frontal furrows; eyes protuberant, non-emarginate; lateral carina of pronotum absent; frontoclypeal suture not indicated; body dorsal surface evenly punctate and setose. Within Eurypinae, *Glesoconomorphus* **gen. nov.** resembles the New World

Conomorphus Champion, 1889 and *Stilpnonotus* Gray, 1832, sharing a distinct, fine ocular groove, narrowly separated from the eyes (Pollock 2016). The new genus can be distinguished from *Silpnonotus* by the dorsal body surface with conspicuous setation and from *Conomorphus* by the non parallel-sided elytra, which are widest posteriorly. *Glesoconomorphus* **gen. nov.** can be additionally distinguished from both above mentioned genera by its distinctly smaller and comparatively wider body.

The new fossil genus differs from *Bertinotus* Kirejtshuk & Nel, 2009 in the presence of paramedian depressions at pronotal base, lateral pronotal carinae not distinct in distal half, and distinctly punctate head. *Glesoconomorphus* **gen. nov.** differs from *Neopolypria* Abdullah, 1964 in the uniform setation of the body, non-emarginate eyes, and pronotum without lateral carina.

Three common characters of Eurypinae were not observed in *Glesoconomorphus* **gen. nov.**: (1) male abdominal setal patch (sex of holotype is unknown), (2) closure of procoxal cavities, (3) apicoventral binding patch on each elytron.

Etymology. The name of the new genus is a compound word and combines "*glesum*" (Latin word for amber) and "*Conomorphus*" (name of the similar recent Neotropical eurypine genus). Gender masculine.

Remarks. The new genus is monotypic, represented by the type species only. Therefore the generic description considerably overlaps that of the species.

***Glesoconomorphus nachzehrer* sp. nov.**
(Figs. 1–5)

Material examined. Holotype: No. 478-2 [CCHH], adult, sex unknown, almost complete (right metatibia and metatarsus, distal part of right protibia and protarsus, and left mesotarsus partially missing). The beetle inclusion is preserved in a polished piece of transparent amber with a yellowish shade. The small amber piece is embedded in a block of polyester resin (total measurements are: 18 × 10 × 5 mm). Syninclusions are represented by numerous pollen grains.

Type strata. Baltic amber, Upper or mid-Eocene.

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

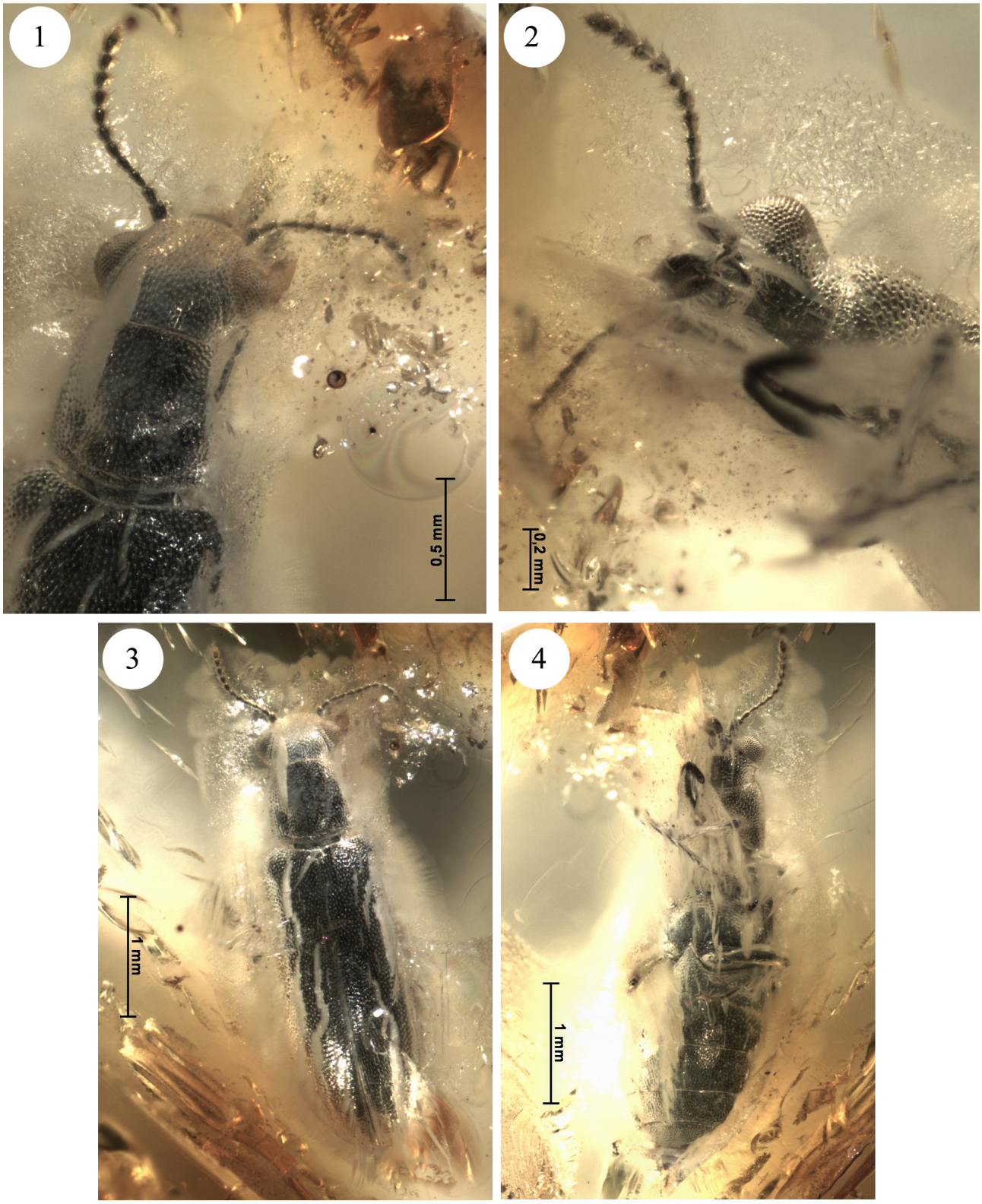
Diagnosis. As stated above, for the new genus.

Description. Body elongate, slightly convex dorsally, dark brown, unicolorous. Dorsal surface evenly covered with fine, decumbent, conspicuous pubescence. Body length 3.6 mm; maximum body width 1.25 mm (elytra postmedially); pronotal length 0.68 mm; maximum pronotal width 0.68 mm; elytral length 2.65 mm.

Head. Moderately narrowed posterior of eyes. Eyes protruding, hemispherical, without intrafacetal setae, widely separated, with entire and straight anterior margin, with distinct facets (as large as punctures on head). Frons convex, minimum distance between eyes 1.5× as wide as longitudinal eye diameter measured laterally. Ocular (suborbital) grooves present, narrowly separated from eyes, distinct, fine, traceable from frontal canthus to posterior extent of eye. Labrum with anterior margin convex. Terminal maxillary palpomere broadly triangular. Antennae 11-segmented, relatively short, reaching posteriorly to near basal third of pronotum. Antennomeres 1–6 cylindrical, longer than wide; antennomeres 7–10 subtriangular; antennomere 11 egg-shaped, longest, about 1.5× as long as antennomere 10.

Thorax. Pronotum subquadrate, widest at midlength. Pronotal base distinctly narrower than elytral base or maximum width of head across eyes. Anterior and lateral margins of pronotum slightly rounded, posterior margin slightly sinuate. Lateral carina absent. Anterior angles broadly rounded, not produced; posterior corners right-angled. Pronotal disc slightly convex, with pair of oblique symmetrical depressions. Posterior margin with distinct, deep, transverse groove. Prosternum long anterior of procoxae. Intercoxal process extended to one-half length of procoxae (procoxae contiguous); procoxal cavities appear to be posteriorly open.

Elytra elongate, disc moderately convex; dorsal surface evenly and irregularly punctate and setose, punctation slightly denser basally on elytra. Setae decumbent, long (equal to 1.5–2.0× distance between punctures); distance between punctures equal to 1.0–2.0× diameter of one puncture. Punctation sparser towards apices. Scutellar shield transverse, pentagonal, rounded. Mesocoxal cavities closed. Elytral epipleura narrow, widest in basal part and then gradually narrowing posteriorly, extended to first ventrite. Metaventrite convex, medially smooth, with very fine and sparse punctation. Discrimen extended anteriorly to near middle of metaventrite.



FIGURES 1–4. *Glesoconomorphus nachzehrer* **gen.** et **sp. nov.**, holotype, No 478-2 [CCHH]: 1—forebody, dorsal view; 2—forebody, ventrolateral view; 3—habitus, dorsal view; 4—habitus, ventrolateral view.

Legs slender. Procoxae subconical, contiguous. Meso- and metacoxae narrowly separated. Tibiae straight, subequal in length to femora. Tibial spurs short. Tarsal formula 5-5-4. Penultimate tarsomere distinctly widened distally. Tarsal claws strongly appendiculate, with large basal tooth. Metatarsomere 1–4 length ratios equal to 15-7-3-7.

Abdomen. With five abdominal ventrites. Anterior process of ventrite 1 triangular, pointed. All ventrites punctate, setose, without discernible sex patch(es). Punctation of ventrites 1–2 sparser (1.5–2.0× diameter of one puncture), punctation of ventrites 3–5 denser and coarser (0.3–1.0× diameter of one puncture), almost rugose. Apical margin of ventrite 5 rounded. Ventrite 1–5 length (along midline) ratios equal to 2.1-1.8-1.8-1.3-1.0.

Etymology. The specific epithet is a German word used as a noun in apposition. A "Nachzehrer" is a sort of undead, or vampire from the folklore of the northern regions of Germany and Poland (Kashubia). According to legend, upon waking, a Nachzehrer first persecutes and murders his natural relatives. The name of this new species refers to the remarkably well-preserved state of the amber inclusions ["ever-living appearance"], the absence of mycterids in present-day Europe ["mysteriously extirpated by something"] and also a reference to the southern Baltic Sea region [including historical Kashubian area].

Remarks. Due to imperfections and cracks in the amber, the procoxae and mouthparts were impossible to examine. Also, the genitalia and metathoracic wings remained internal and were not extended in the specimen. The dark, monochrome body color of the specimen could be a result of the fossilization in amber, and not represent its actual color in life.

Genus *Omineus* Lewis, 1895

This is a small genus which presently contains 5 extant species (Young & Saitô 2017), distributed in the eastern Palaearctic (Japan, Taiwan) and Oriental regions. The fossil specimen under study resembles recent *Omineus* species in general appearance and was assigned to this genus based on a combination of the following morphological characters: paramedian depressions at pronotal base present; clypeus flat and frons convex; head slightly narrowed posterior of eyes; frontal furrows and ocular grooves absent; eye protuberant, non-emarginate, without intrafacetal setae; pronotum transverse; pronotal basal margin with shallow groove; and lateral carina of pronotum absent.

Omineus febribilis sp. nov.

(Figs. 6–10)

Material examined. Holotype: No. AWI-142 [CVIA], adult, female (protruding ovipositor; sex patches on ventrite 2 absent), almost complete specimen (left antennomeres 6–11 missing). The beetle inclusion is preserved in a small polished piece of transparent amber with a yellowish shade. The amber piece is embedded in a block of polyester resin (total measurements are: 14 × 8 × 4.5 mm). Syninclusions are absent.

Type strata. Baltic amber, Upper or mid-Eocene.

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

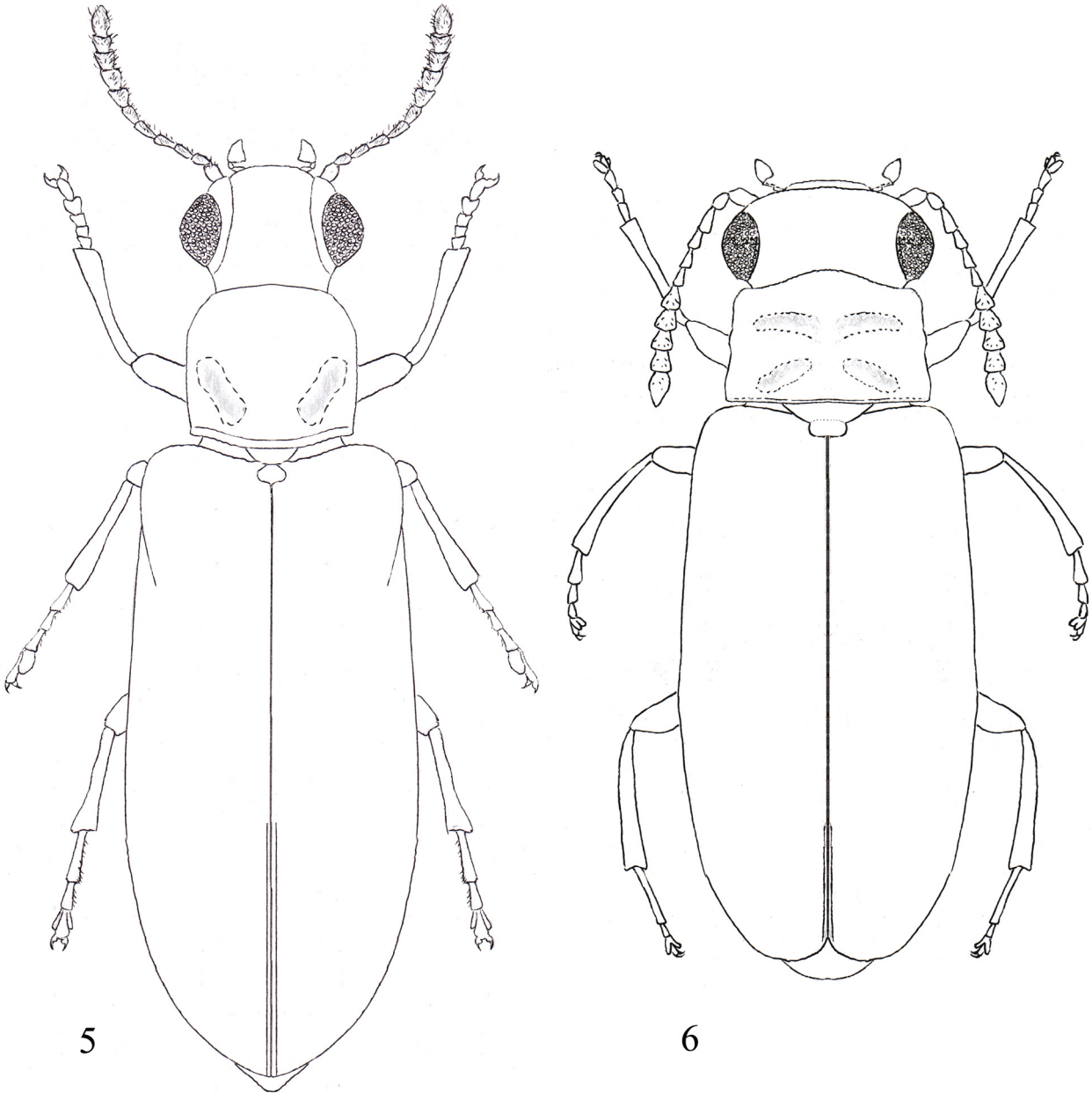
Diagnosis. The habitus of the new fossil species is similar to *O. humeralis* Lewis, 1895 and *O. toyoshimai* Young & Saitô, 2017 but differs from these species in having sparser and finer dorsal pubescence, distinctly longer antennae, intervals of elytra without definitive transverse rugosities, sparsely and finely punctate abdominal ventrites, shorter body length (3.8–5.4 mm in *O. humeralis* and 4.3–4.9 mm in *O. toyoshimai*), metatarsomere 1 longer than metatarsomeres 2–4 combined, comparatively narrower frons, and unicolorous dark body and appendages.

Description. Body elongate, slightly convex dorsally, unicolorous dark brown. Elytral surface evenly covered with fine, decumbent pubescence. Pubescence of pronotum and head almost inconspicuous, very fine and short. Body length 3.1 mm; maximum body width 1.25 mm (elytra postmedially); pronotal length 0.50 mm; maximum pronotal width 0.75 mm; elytral length 2.33 mm.

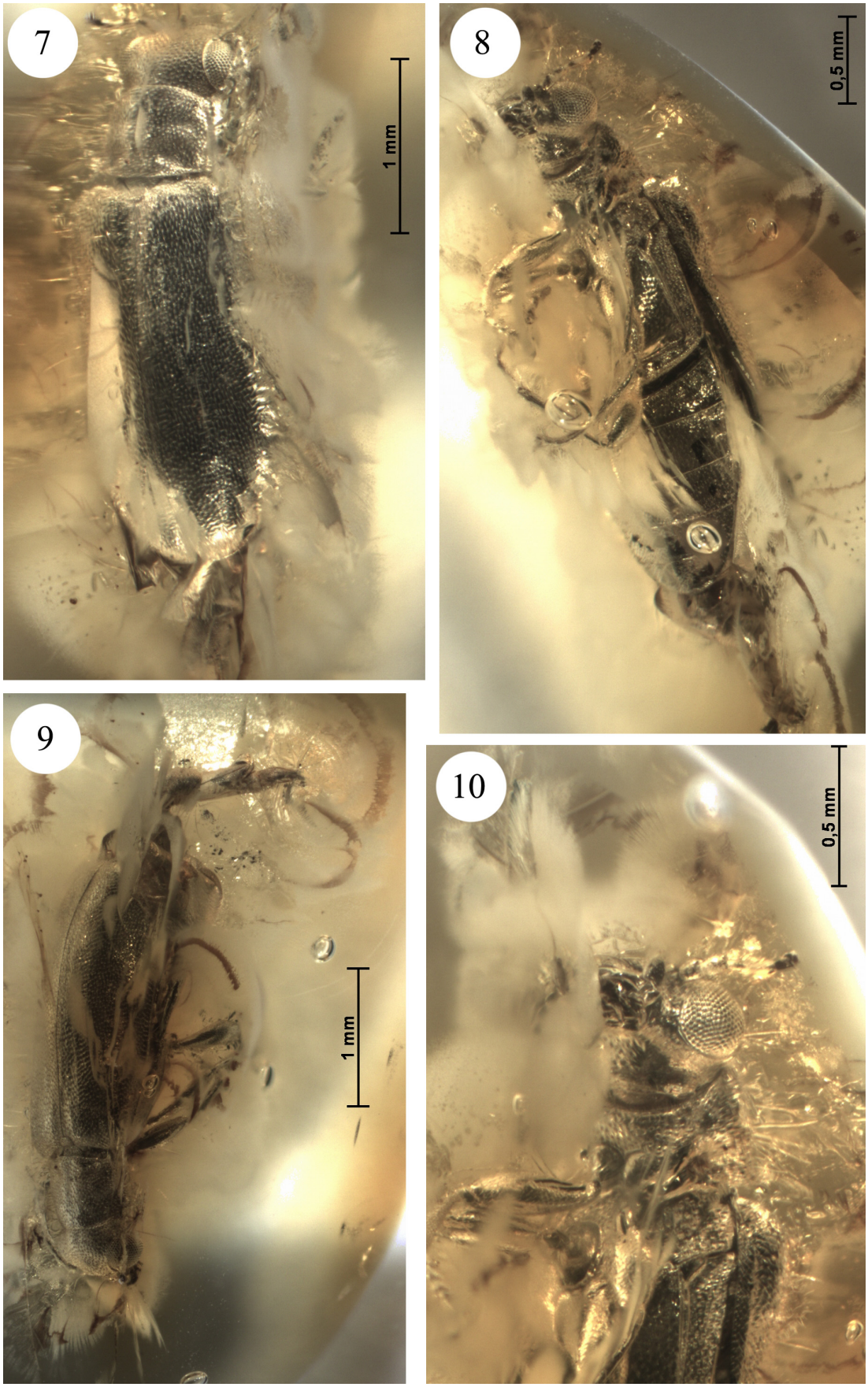
Head. Slightly narrowed posterior of eyes. Eyes large, hemispherical, without intrafacetal setae, widely separated, anterior margin entire, with distinct facets equal in size to punctures on head. Clypeus flat, evenly depressed; frons convex. Minimum distance between eyes 1.2× as wide as longitudinal eye diameter measured laterally. Labrum distinctly transverse, with convex anterior margin. Mandibles apically bidentate. Terminal maxillary palpomere weakly securiform. Antennae 11-segmented, reaching base of pronotum. Antennomeres 1–6 oblong, filiform; antennomeres 7–10 conical, as wide as long; antennomere 11 longest, elongate, tapered.

Thorax. Pronotum transverse, distinctly narrower than width across elytral bases or head across eyes. Anterior pronotal margin arcuate, posterior margin straight; lateral margins slightly sinuate. Anterior angles obtuse, posterior angles almost rectangular. Lateral carina absent. Pronotal disc indistinctly convex, with four symmetrical transverse depressions: very shallow oblique pair slightly anterior of pronotal midlength, and deeper oval pair in posterior half of pronotum. Pronotal punctation rounded, coarse, dense. Intercoxal process not discernible (procoxae contiguous); procoxal cavities open.

Elytra elongate, with margins subparallel (slightly widened postmedially) and disc moderately convex. Humeri and elytral apices rounded. Dorsal surface evenly and irregularly punctate and setose. Setae decumbent, fine. Punctation shallow, dense, with distance between punctures equal to 0.5–1.5× diameter of one puncture. Scutellar shield transverse, oval. Mesocoxal cavities closed. Epipleura narrow, widest in basal part and then gradually narrowing posteriorly, extended to third ventrite. Metathoracic wings fully developed, distal areas partially exposed on specimen. Metaventrite convex, sparsely punctate medially. Discrimen extended anteriorly to near one third of metaventrite.



FIGURES 5–6. Reconstructions of Eurypinae from Baltic amber: 5—*Glesoconomorphus nachzehrer* **gen.** et **sp. nov.**; **6**—*Omineus febribilis* **sp. nov.**



FIGURES 7–10. *Omineus febribilis* **sp. nov.**, holotype, No. AWI-142 [CVIA]: 7—habitus, dorsolateral view; 8—habitus, ventrolateral view; 9—habitus, lateral view; 10—forebody, ventrolateral view.

Legs slender. Procoxae conical, projecting, contiguous. Tibiae straight, subequal in length to femora. Tibial spurs short. Tarsal formula 5-5-4. Penultimate tarsomere lobed. Mesocoxae narrowly separated. Metatarsomere 1 longer than metatarsomeres 2–4 combined. Metatarsomere 1–4 length ratios equal to 19-5-3-5. Tarsal claws swollen basally, acute.

Abdomen. With five abdominal ventrites. Anterior process of ventrite 1 triangular. All ventrites finely, sparsely and shallowly punctate, setation inconspicuous, discernible sex patch(es) absent. Apex of terminal ventrite widely rounded. Distal parts of the reproductive system visible, making definite determination of female sex possible. Apical margin of ventrite 5 rounded. Ventrites 1–5 length (along midline) ratios equal to 1.8-1.8-1.7-1.0-1.3.

Etymology. The specific epithet of this new fossil species (Latin adjective «febribilis» means "feverish", "calling of fever") refers to the obsessive and passionate searching, mining, sampling, netting and collecting of amber in areas where it is endemic. This is called "Bernsteinfieber" (in German) or "febris succinica" (in Latin), i.e. amber "fever".

Remarks. The dark, monochrome body color of the specimen could be a result of the fossilization in amber.

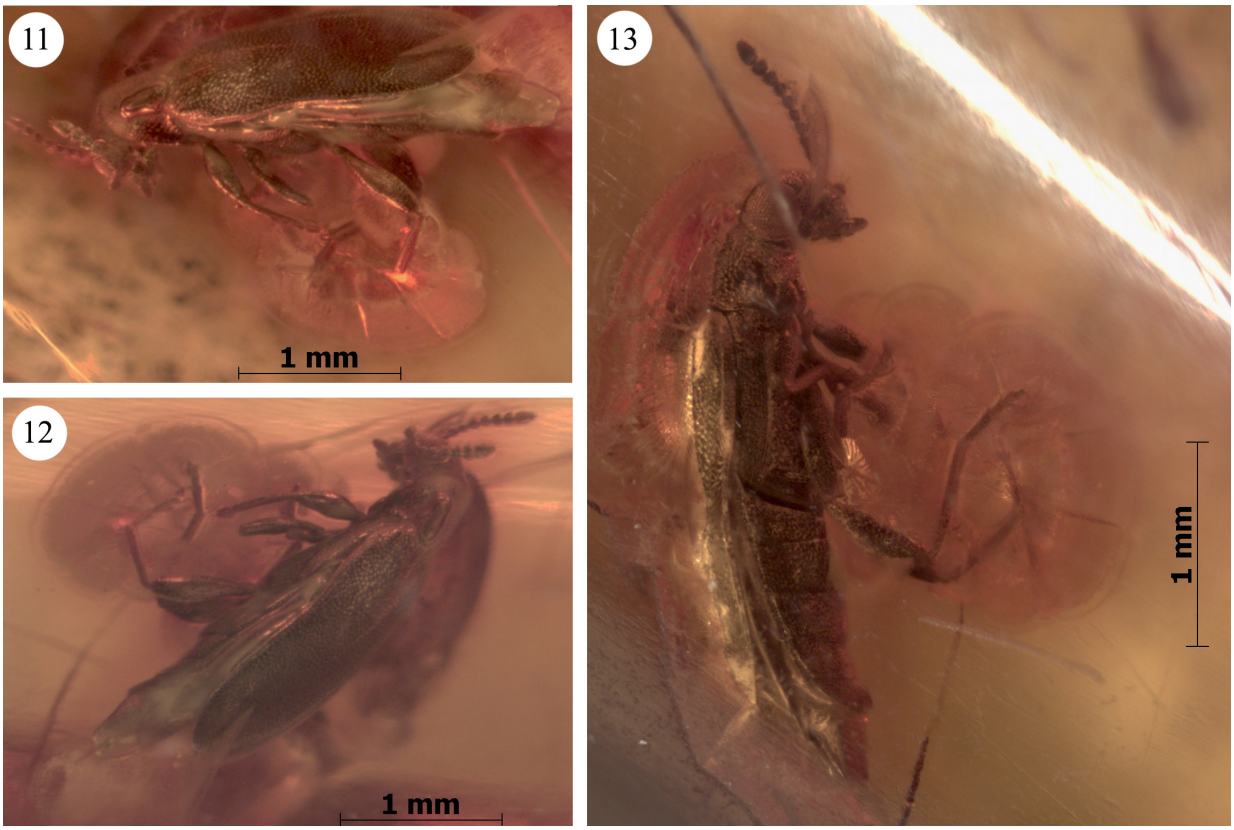
Additional fossil records of Mycteridae

Family Mycteridae Oken, 1843

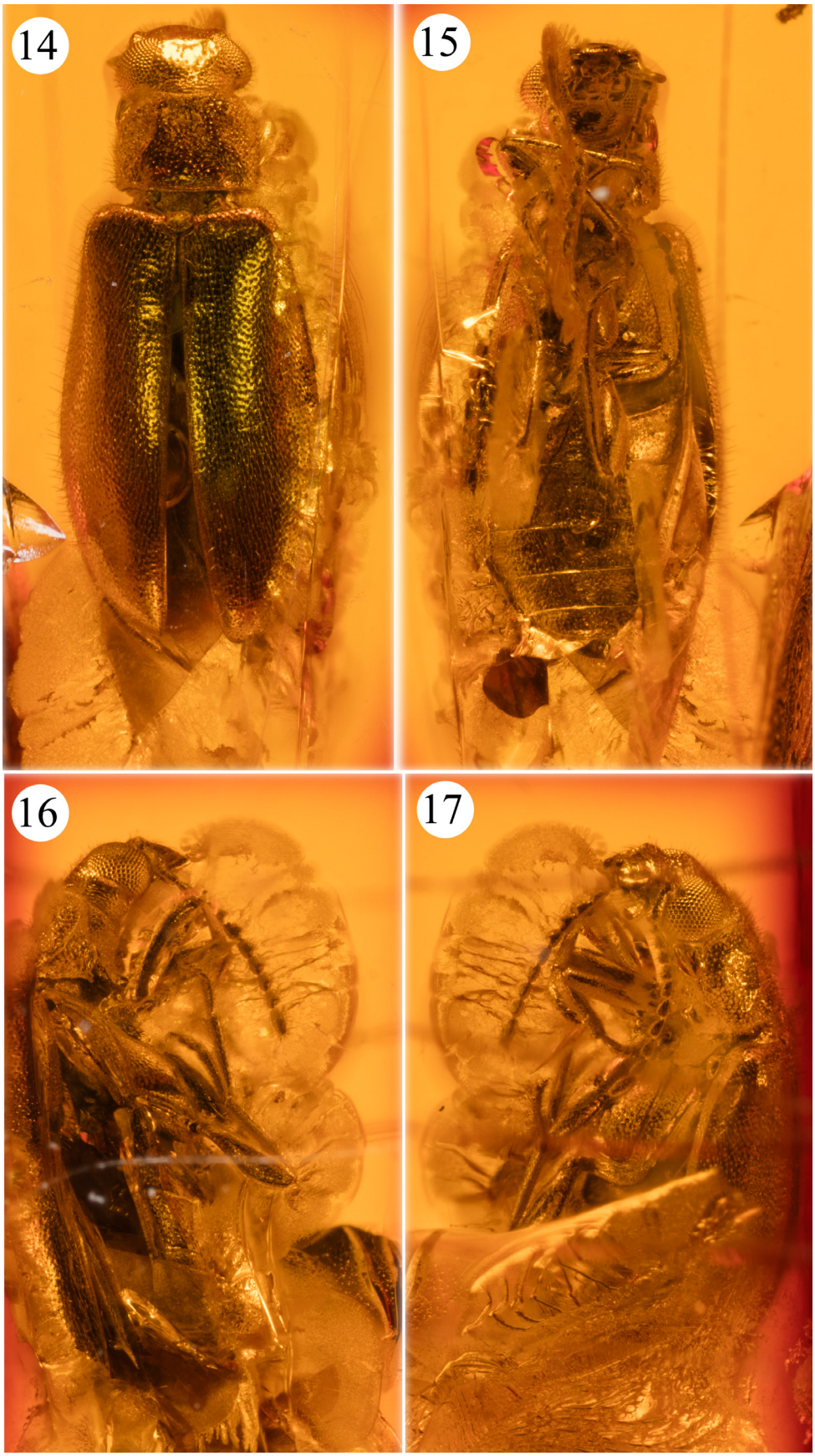
Subfamily Eurypinae Thomson, 1860

(Figs. 11–13)

Material examined. No. AWI-059 [CVIA], adult, male (ventrite 2 with sex patch), complete specimen. The beetle inclusion is preserved in an oval, medium-sized polished piece of transparent Baltic amber with orange shade without supplementary fixation (total measurements are: 23 × 12 × 6 mm). Syninclusions are represented by one Acari specimen.



FIGURES 11–13. Fossil Eurypinae from Baltic amber, specimen No. AWI-059 [CVIA]: 11—habitus, dorsolateral view; 12—habitus, left lateral view; 13—habitus, right lateral view.



FIGURES 14–17. *Neopolypria nigra* Abdullah, 1964, holotype, In.18786 [BMNH]: 14—habitus, dorsal view; 15—habitus, ventral view; 16—habitus, right lateral view; 17—habitus, left lateral view (photo courtesy: BNHM). Not reproduced to the same scale.

Note. The beetle (total length 2.6 mm) has a triangular last maxillary palpomere, penultimate tarsomeres lobed, abdomen with five ventrites coarsely punctate, large protuberant eyes, oval protuberance on ventrite 2, antennal insertions not concealed by lateral extension of frons, subapical antennomeres transverse, pronotum without lateral carina, elytra setose and irregularly punctate, procoxae subconical and contiguous, tarsal formula 5-5-4. All abovementioned characters allow us to assign the specimen to the subfamily Eurypinae within Mycteridae. The specimen apparently differs from both beetles described above, but the important diagnostic characters are not distinctly visible or are completely obscured on the specimen. The beetle cannot be named to genus and formally described at present, until additional conspecific specimens are discovered.

Discussion

Some remarks to the distribution and biology of relatives of the described fossils. Representatives of the subfamily Eurypinae are not known from present-day Europe. This group is also very scarce in the entire Palaearctic with only two species of *Omineus* Lewis which are restricted to the eastern and south-eastern parts of the region. The presence of the subfamily in the European Lower Eocene was reported earlier by Kirejtshuk & Nel (2009). Our records of eurypine taxa from Baltic amber additionally indicate the presence of this group in the western Palaearctic region also during the Middle-Upper Eocene. No phylogenetic or biogeographical analyses have been conducted on Eurypinae; however, there appears to be some discernible patterns, at least among Neotropical taxa. A seemingly well-defined group is what Pollock (2006) called the "conomorphine group", consisting of *Cleodaeus*, *Conomorphus*, *Physcius* and *Stilpnonotus*, where all members possess large, hemispherical eyes and abdominal ventrite 3 with sex patch in males. We hypothesize that *Glesoconomorphus* **gen. nov.** is also a member of this group. A second group of eurypines exists in South America, from the true Neotropics south into Chile (e.g. *Thisias* and *Loboglossa*). These mycterids, called the "thisiine" group by Pollock (2006) have their closest relatives in Australia (e.g. *Trichosalpingus*, "*Loboglossa*", and one or two undescribed genera), i.e. they exhibit a relictual Gondwanian distribution.

The biology of Mycteridae is poorly known, though both adults and larvae appear to be tied closely to vegetation, including grasses and palms (Pollock 2010; Pollock & Chaboo 2016). For the eurypine beetles, the knowledge of biology and habitat is very incomplete, though larvae have been known to occur under loosened bark of different dead trees, in burrows perpendicular to the long axis of the dead tree or log, in palm leaf axils or dead foliage (Costa & Vanin 1984; Pollock 1995, 2010; Pollock & Ivie 2004; Pollock & Majka 2012; Pollock & Chaboo 2016; Pollock *et al*. 2000). *Omineus toyoshimai* develops in dead branches of *Abies* (Young & Saitô 2017).

Placement of *Neopolypria nigra* Abdullah, 1964. *Neopolypria nigra* was described from Baltic amber and was assigned to Mycteridae (Lacconotinae, Lacconotini) by Abdullah (1964). This taxon was compared with numerous extant genera: *Polypria* Chevrolat, *Eurypus* Kirby, *Physcius* Champion, *Cleodaeus* Champion, *Conomorphus* Champion, *Conomorphinus* Champion, *Omineus* Lewis, *Stilponotus* [sic] Gray, *Loboglossa* Solier, *Grammatodera* Champion, *Lacconotus* LeConte, *Eurypinus* Champion, *Stictodrya* Champion, *Thisias* Champion, *Batobius* Fairmaire & Germain, *Lagrioida* Fairmaire & Germain, *Mycterus* Clairville, and *Mycteromimus* Champion.

In subsequent papers (Spahr 1981; Alekseev 2013, 2017), *Neopolypria* was included in Mycteridae. Such a family placement in the absence of more detailed studies of the holotype must be regarded cautiously. The concept of Lacconotini (=Eurypinae) of Abdullah (1964) was different than the modern concept of this taxon, and included at least two genera, not listed in subfamily Eurypinae (Mycteridae) in its present sense (Pollock 2010). The first of them is *Lagrioida* Fairmaire and Germain, 1860, which according to Bouchard *et al*. (2011) belongs to the subfamily Lagrioidinae Abdullah & Abdullah, 1968 within the family Scraptiidae Gistel, 1848. The second genus, now also excluded from Mycteridae, is *Polypria* Chevrolat, 1874. This genus is placed by Lawrence (2005) into the recently erected subfamily Polypriinae within the family Oedemeridae Latreille, 1810.

In the original description of *Neopolypria nigra* it was stated by Abdullah (1964: 337): "Of these genera, all of which were examined by me, the one that was most similar to the new genus was *Polypria*, which is native to Brazil." Abdullah (1964) stated that the genus *Neopolypria* possesses the following characters: dimorphic vestiture; abdomen with first two visible sternites connate; bordered prothorax; eyes large, convex, hairy, feebly emarginated apically near antennal insertion; maxillary palps 4-segmented; labial palp 3-segmented; apical palpal

segment securiform; front coxa distinctly projecting; penultimate tarsal segments distinctly lobed below; antenna subserrate (nearly filiform); claw appendiculate. According to the redescription of *Polypria* by Lawrence (2005: 667), the genus has "complete (although vaguely indicated) lateral pronotal carinae; strongly serrate to pectinate antennae; dual vestiture; eyes large, strongly protuberant, moderately deeply emarginate and coarsely facetted with distinct interfacetal setae; pretarsal claws toothed"; etc. Several characters of *Polypria* and *Neopolypria* are different or appear to be different based on descriptions only, e.g. "frontoclypeal sulcus absent" in *Neopolypria* and "frontoclypeal suture incomplete, represented by short, oblique segment on each side" in *Polypria*. The similarity of *Polypria* and *Neopolypria* was stated by Abdullah (1964), who examined three species of *Polypria* (*P. cruxrufa* Chevrolat, *P. brevipennis* Pic, and *P. lateralis* Pic) in comparison to his new fossil species. Although several species that Pic described in the genus *Polypria* actually belong in *Eurypus* (Pollock 2005), the species examined by Abdullah are true members of *Polypria* and *P. cruxrufa* Chevrolat, 1874 is the type species of the genus.

Based on original description (Abdullah 1964) and after examination of the holotype photos (Figs. 14–17), we conclude that *Neopolypria* is not a member of Mycteridae, and suggest that it should be placed in Tenebrionoidea Latreille, 1802 *incertae sedis*, with subfamily Polypriinae (Oedemeridae) as the closest, most logical choice.

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References

Abdullah, M. (1964) New heteromerous beetles (Coleoptera) from the Baltic amber of eastern Prusssia and gum copal of Zanzibar. *Transactions of the Royal Entomological Society of London*, 116 (13), 329–346. https://doi.org/10.1111/j.1365-2311.1964.tb02300.x

Alekseev, V.I. (2013) The beetles (Insecta: Coleoptera) of Baltic amber: the checklist of described species and preliminary analysis of biodiversity. *Zoology and Ecology*, 23, 5–12. https://doi.org/10.1080/21658005.2013.769717

Alekseev, V.I. (2017) Coleoptera from the middle-upper Eocene European ambers: generic composition, zoogeography and climatic implications. *Zootaxa*, 4290 (3), 401–443. https://doi.org/10.11646/zootaxa.4290.3.1

Bouchard, P., Bousquet, Y., Davies, A.E., Alonso-Zarazaga, M.A., Lawrence, J.F., Lyal, C.H. C., Newton, A.F., Reid, C.A.M., Schmitt, M., Ślipiński, S.A. & Smith, A.B.T. (2011) Family-group names in Coleoptera (Insecta). *ZooKeys*, 88, 1–972. https://doi.org/10.3897/zookeys.88.807

Costa, C. & Vanin, S.A. (1984) Larvae of Neotropical Coleoptera. X: Mycteridae, Lacconotinae. *Revista brasileira de Zoologia*, 2, 71–76. https://doi.org/10.1590/S0101-81751983000200005

Hoffeins, H.W. (2001) On the preparation and conservation of amber inclusions in artificial resin. *Polish Journal of Entomology*, 70, 215–219.

Ivie, M.A. & Pollock, D.A. (2012) The Familial placement of *Cladobradus* Pic (Coleoptera: Ptilodactylidae, Dascillidae, Mycteridae). *The Coleopterists Bulletin*, 66 (1), 7–13. https://doi.org/10.1649/072.066.0102

Kirejtshuk, A.G. & Nel, A. (2009) New genera and species of Cucujiformia (Coleoptera, Polyphaga) from lowermost Eocene French amber. *Denisia*, 26, 103–118.

Kubisz, D (2000) Fossil beetles (Coleoptera) from Baltic amber in the collection of the Museum of Natural History of ISEA in Krakow. *Polish Journal of Entomology*, 69 (2), 225–230.

Lawrence, J.F. (2005) *Dasytomima*, a new genus of Australian Oedemeridae and its relationship to *Polypria* Chevrolat (Coleoptera: Tenebrionoidea). *Annales Zoologici, Warszawa*, 55 (4), 663–676.

Pollock, D.A. (1995) The Antillean *Physcius fasciatus* Pic (Coleoptera: Mycteridae: Lacconotinae): redescription of the adult and description of the larva. *The Coleopterists Bulletin*, 49, 387–392.

Pollock, D.A. (1997) Review and systematic placement of the Afrotropical genus *Lacconotopedilus* Pic (Coleoptera: Mycteridae: Lacconotinae). *African Entomology*, 5 (1), 51–56.
Pollock, D.A. (1999) Review of the New World Hemipeplinae (Coleoptera: Mycteridae) with descriptions of ten new species. *Entomologica Scandinavica*, 30, 47–73.
https://doi.org/10.1163/187631200X00200
Pollock, D.A. (2005) Nomenclatural changes in eurypine Mycteridae (Coleoptera), with special reference to taxa described by Maurice Pic. *Coleopterists Bulletin*, 59 (2), 250–255.
https://doi.org/10.1649/762
Pollock, D.A. (2006) *Brasilaccoderus*, a new genus of Eurypinae (Coleoptera: Mycteridae) from Brazil. *Zootaxa*, 1368, 41–48.
Pollock, D.A. (2010) 11.20. Mycteridae Blanchard, 1845. *In*: Beutel, R.G. & Leschen, R.A.B. (Eds.), *Handbuch der Zoologie/ Handbook of Zoology. Insecta: Coleoptera, Beetles. Vol. 2*. W. de Gruyter Inc., Berlin, pp. 693–699.
https://doi.org/10.1515/9783110911213.693
Pollock, D.A. (2012) *Mycterus youngi* (Coleoptera: Mycteridae), a new species from the Great Lakes Region with a revised key to species of North America. *The Coleopterists Bulletin*, 66 (1), 23–26.
https://doi.org/10.1649/072.066.0105
Pollock, D.A. (2016) Revision of the genus *Thisiomorphus* Pic (Coleoptera: Mycteridae: Eurypinae) with descriptions of eleven new species from Central and South America and a key to genera of Neotropical Eurypinae. *Zootaxa*, 4093 (3), 301–322.
https://doi.org/10.11646/zootaxa.4093.3.1
Pollock, D.A. & Chaboo, C.S. (2016) Beetles (Coleoptera) of Peru: a survey of the families. Mycteridae Blanchard, 1845. *Journal of the Kansas Entomological Society*, 89 (2), 174–177.
https://doi.org/10.2317/0022-8567-89.2.174
Pollock, D.A., Ide, S. & Costa, C. (2000) Review of the Neotropical genus *Physiomorphus* Pic (Coleoptera: Mycteridae: Lacconotinae), with description of the larvae of three species. *Journal of Natural History*, 34 (12), 2209–2239.
https://doi.org/10.1080/002229300750037875
Pollock, D.A. & Majka, C.G. (2012) Review of the Nearctic genus *Lacconotus* LeConte (Coleoptera, Mycteridae, Eurypinae). *ZooKeys*, 162, 1–24.
https://doi.org/10.3897/zookeys.188.2976
Spahr, U. von (1981) Systematischer Katalog der Bernstein- und Kopal-Käfer (Coleoptera). *Stuttgarter Beiträge zur Naturkunde*, Series B, 80, 1–107.
Young, D.K. & Saitô, M. (2017) A new *Omineus* (Coleoptera, Mycteridae, Eurypinae) from Honshu, Japan. *Elytra, Tokyo*, New Series, 7 (2), 417–420.