Attagenus lundi sp. nov. from Cretaceous Burmese amber (Coleoptera: Dermestidae: Attageninae)

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Abstract. The species *Attagenus lundi* sp. nov. from Cretaceous Burmese amber is described, illustrated and compared. Dermestidae known from the Burmese amber are listed.

INTRODUCTION

The skin beetles (Dermestidae), also known as the carpet beetles or hide beetles include 1500 small species in about 60 genera (Háva 2015). The Dermestidae (Coleoptera) from Burmese amber have been recently studied new taxa were described (Cai et al. 2017, Deng et al. 2017). In the present article, a new species is described

MATERIAL AND METHODS

The present study is based on a specimen of Dermestidae embedded in the Burmese amber coming from the Hukawng Valley of northern Myanmar. Burmese amber is one of the most important fossiliferous resins from the Cretaceous. The recently conducted UePb zircon dating restricted its age to 98.79 ± 0.62 MY, which is equivalent to the Late Cretaceous (Shi et al., 2012). The morphological terminology of Dermestidae employed here is largely based on that of Lawrence & Ślipiński (2010), and the higher classification of Dermestidae is that of Háva (2015).

The Burmese amber specimen was examined from the personal amber collection of Anders Leth Damgaard (ALDC), and the holotype is housed in the ALDC, Denmark for safekeeping to be eventually deposited in the Zoological Museum, University of Copenhagen (ZMUC).

Photographs of the specimen of the species described herein are hosted at the website www.amber-inclusions.dk.

Specimen of the presently described species are provided with a red, printed label with text as follows: "HOLOTYPE *Attagenus lundi* sp. nov. J. Háva & A. Damgaard det. 2017"

RESULTS

Subfamily Attageninae Tribe Attagenini

Attagenus lundi sp. nov. (Figs. 1-3)

Type material. Holotype (not sexed): No: o261, lowermost Cenomanian, Hukawng Valley, northern Myanmar (ZMUC).

Description. Body (Fig. 1) length 2.85 mm (measured from anterior margin of pronotum to abdominal apex). Body oval, slightly convex dorsally; black throughout whole body; dorsal surface with dense, recumbent hairs; hairs on ventral side thinner than those on dorsal side. Head, pronotum, and elytra with uniform, fine, dense punctures.

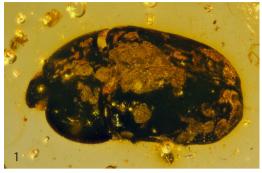
Head markedly narrower than anterior pronotal width, hypognathous, slightly declined. Eye protruding laterally, entire, rounded, coarsely faceted, and widely separated. Single median ocellus located frontally, between eyes. Antenna with eleven antennomeres, short; apical threes antennomeres forming a distinct club. Antennomere 8 rounded; antennomere 9 and 10 wider than long; antennomere 9 strongly transverse, much wider than antennomere 8; antennomere 10 longer than antennomere 9; antennomere 11 long and conical. Maxillar and labial palpi not visible. Mandible not visible.

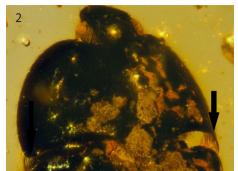
Pronotum broad, anterior margin of pronotum arcuate, posterior margin bisinuate; posterior pronotal angle rounded. Posterior part with long black setae (Fig. 2). Base of prothorax slightly narrower than combined elytral base. Prosternum not forming a 'collar'. Prosternal process broad, gradually toward apex, rounded apically. Scutellum large, setose, triangular, with acute apex.

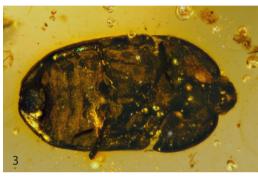
Elytron entire, covering whole abdomen posteriorly. Elytral disk neither striate nor carinate, margins and, epipleural ridge developed. Epipleuron well developed, not reaching the apex of the elytron.

Legs short. Procoxae large, transverse, slightly projecting; distinctly separated. Mesocoxae transverse widely separated. Metaventrite broad, much longer than mesoventrite together; metepisternum exposed along entire length, elongate, parallel-sided. Metacoxae strongly transverse, laterally reaching elytral margins, excavate to receive metafemora, distinctly separated by almost the same distance as procoxae. Trochanter prominent; pro- and mesofemur stout, slightly excavate to receive tibia; tibia elongate, slightly widened toward apex, armed with dense short spines and two strong spurs at apex. Tarsal formula 5-5-5, simple; tarsomeres1-4 almost of same lengths; all tarsomeres 5 longest, as long as the previous three tarsomeres together in pro- and mesotarsi, slightly shorter than tarsomeres 2-4 together in metatarsi. Pretarsal claw simple.

Abdomen with five visible abdominal ventrites (Fig. 3); intercoxal process of ventrite 1 below posterior metaventral margin. Ventrite 1 longest; ventrites 2-4 successively shortened; ventrite 5 slightly longer than ventrite 4, rounded at apex.







Figs. 1-3. Attagenus lundi sp. nov.: 1- habitus, dorsal aspect; 2- pronotum with setation; 3- habitus, ventral aspect.

Differential diagnosis. The genus *Attagenus* Latreille, 1802 known from Burmese amber is represented by two known species *Attagenus burmiticus* Cai, Háva et Huang, 2017 and *Attagenus secundus* Deng, Ślipiński, Ren et Pang, 2017. The new species differs from the two known species by its large body form (2.85 mm) and long setation on posterior parts of pronotum (Fig. 2), other two species are free of the long pronotal setation.

Etymology. Patronymic, the species is dedicated to Peter Wilhelm Lund (1801-1880), Danish palaeontologist, zoologist and archaeologist.

LIST OF DERMESTIDAE KNOWN FROM BURMESE AMBER

Subfamily Attageninae Tribe Attagenini

Genus Attagenus Latreille, 1802 Attagenus burmiticus Cai, Háva et Huang, 2017 Attagenus lundi sp. nov. Attagenus secundus Deng, Ślipiński, Ren et Pang, 2017

Tribe Cretodermestini

Genus Cretodermestes Deng, Ślipiński, Ren et Pang, 2017 Cretodermestes palpalis Deng, Ślipiński, Ren et Pang, 2017

Subfamily Megatominae Tribe Megatomini

Genus Megatoma Herbst, 1791

Megatoma atypica Deng, Ślipiński, Ren et Pang, 2017

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