Studies and reports of District Museum Prague-East
Taxonomical Series 2 (1-2): 65-68, 2006

New fossil dermestid beetles (Coleoptera: Dermestidae) from the Baltic amber – II.

Jiří HÁVA[1], Jakub PROKOP[2] & Marcin KADEJ[3]

[1)] Private Entomological Laboratory and Collection, Branická 13/574,
CZ-147 00 Praha 4, Czech Republic;
e-mail: jh.dermestidae@volny.cz
[2)] Department of Zoology, Charles University Prague, Viničná 7,
CZ-128 44 Praha 2, Czech Republic;
e-mail: jprokop@natur.cuni.cz
[3)] Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute, University of Wrocław, ul. Przybyszewskiego 63/77, PL-51-148 Wrocław, Poland;
e-mail: entomol@biol.uni.wroc.pl

Taxonomy, description, fossil, Coleoptera, Dermestidae, new species, Tertiary, Eocene, Oligocene, Baltic amber

Abstract. A new representative of dermestid beetle is described from Paleogene inclusions of the Baltic amber, i. e. *Anthrenus* (*Nathrenus*) *electron* sp. n. This fossil species largely extend our knowledge of diversity of this group in Tertiary.

INTRODUCTION

Family Dermestidae is a diverse group with a number of cosmopolitan species comprising about 1300 species in recent fauna (Háva 2003, 2004, 2006, Lawrence & Slipinski 2005). Fossil record of dermestid beetles is well known from the Cenozoic deposits of the Baltic and Dominican ambers (Carpenter 1992). Several specimens are also described from lacustrine deposits of Europe and North America (Wappler 2003). An attribution of the Late Triassic genera from Queensland (Australia) to the family Dermestidae based on elytra structure are considered as family uncertain assignments (Carpenter 1992).
The present paper is one of a series about fossil Dermestidae from the Baltic and Dominican ambers (Háva & Prokop 2004, 2006, Háva, Prokop & Herrmann 2006).

MATERIAL AND METHODS

Material of insect inclusions is preserved in polished pieces of rather transparent amber resin protected against weathering and damage by embedding in the synthetic resin (GTS / 2-component resin) or at least covered with lacquer. Standard techniques of observation by stereomicroscope (Olympus SZX 9) and digital photography (Olympus 5060) were used. The integumental structures are named according to work of Harris (1979).
Because the size of beetles or their body parts size can be useful in species recognition, the following measurements were made:

total length (TL) – linear distance from anterior margin of pronotum to apex of elytra
elytral width (EW) – maximal linear transverse distance

Material examined for this study is housed in the following museums and private collections abbreviated by acronyms:
AGCP private collection of Andrzej Górski, Bialsko-Biala, Poland;
MZ Muzeum Ziemi PAN, Warszawa, Poland.

Photographs of newly described species are available also on we sites (Háva 2006).

RESULT

Globicornis ambericus Háva, Prokop & Herrmann, 2006

Material examined. 1 amber inclusion collected in Poland, Gdansk, J. Háva det., (AGCP).

Remarks. Species originally described from Jantarnyj (Russia, Kaliningrad district) is currently recorded from another site in Poland.

Attagenus hoffeinsorum Háva, Prokop & Herrmann, 2006

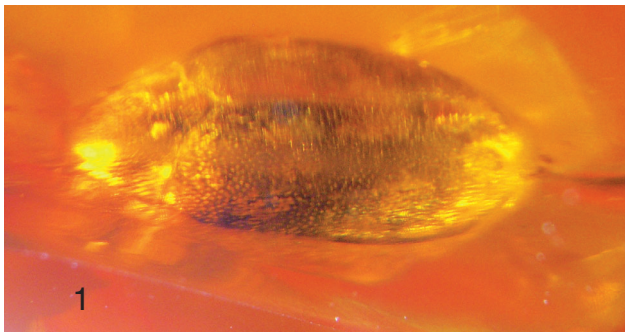
Material examined. 1 amber inclusion collected in Poland, Gdansk, 1975, No. 10416, J. Háva det., (MZ).

Remarks. Species originally described from Jantarnyj (Russia, Kaliningrad district) is currently recorded from another site in Poland.

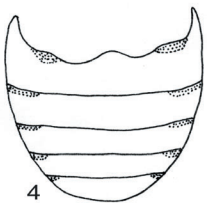
Anthrenus (*Nathrenus*) *electron* sp. n.
(Figs 1-4)

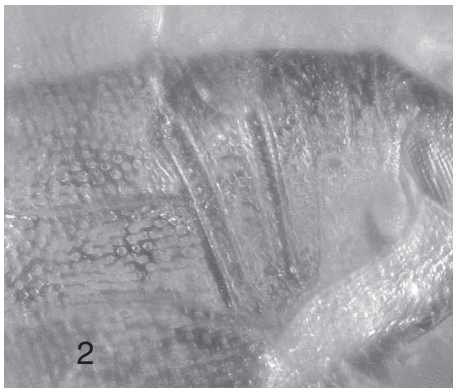
Type material. Holotype, amber inclusion collected in Poland, Gdansk, 1968, 3209 (MZ). Holotype specimen is provided with a red, printed label with text as follows: „HOLOTYPE, *Anthrenus (Nathrenus) electron* sp. n., J. Háva, J. Prokop & M. Kadej det. 2006".

Description of holotype. Measurements (mm): TL 2.3 EW 1.2. Body black, oval (Fig. 1). Dorsal surface covered by black and white scales (Fig. 1, 3); black scales forming transverse band and apical spot. Individual scales setiform, narrow and long. Antennae black with 11 antennomeres; antennal club black, compact, with 3 antennomeres, terminal antennomere regularly rounded. Eyes with entire median margin. Frontal median ocellus presented. Ventral surface covered only with white scales (Fig. 2). Prosternum only with white scales. Metasternum with only white scales, without a large patch of black scales at lateral margins. Abdominal sternites bearing small spots of black scales at antero-lateral margins (Fig. 4). Sternites I-IV without one large spot of black scales in the middle. Legs black, with white setation.



Figs 1-4: *Anthrenus* (*Nathrenus*) *electron* sp. n. (holotype): 1- habitus dorsal aspect; 2- ventral aspect; 3- left elytron; 4- abdominal sternites.





Differential diagnosis. The new *Anthrenus* species belongs to the subgenus *Nathrenus* Casey, 1900. The subgenus *Nathrenus* Casey, 1900 differs from other subgenera by the following characters: antennae with 11- antennomeres, eyes with median margin complete. The new species is visually similar to the two known ambers described species, but differs from it of the characters mentioned in the following key:

1(4) dorsal surfaces covered by bicolorous scales
2(3) elytra covered by black and white scales; black scales forming transverse band and apical spot; abdominal sternites bearing small spots of black scales at antero-lateral margins ..... *A. electron* sp. n.
3(2) elytra covered by black scales with small circular patches of yellow scales ..... *A. groehni* Háva, Prokop & Herrmann, 2006
4(1) dorsal surfaces covered by unicolorous scales; elytra without patches ..... *A. ambericus* Háva, Prokop & Herrmann, 2006

Name derivation. Named after the Latin word electron (electrum).

ACKNOWLEDGEMENTS. Authors are indebted to Mr. Andrzej Górski (AGCP) and Prof. Barbara Kosmowska-Ceranowicz (MZ) who kindly loaned us an interesting amber material of dermestid beetles. The second author acknowledges of the research support to Grant Agency of the Czech Republic (No. 205/03/D151) and the Ministry of Schools J13/98-113100004.

REFERENCES

CARPENTER F. M. 1992. *Insecta*. In: MOORE R. C. (ed.) Treatise on invertebrate paleontology, part R, Insecta (3-4), 655 pp.

HÁVA J. 2003: World Catalogue of the Dermestidae (Coleoptera). *Studie a Zprávy Oblastního Muzea Praha-východ v Brandýse nad Labem a Staré Boleslavi*, Supplementum 1, 196 pp.

HÁVA J. 2004: World keys to the genera and subgenera of Dermestidae (Coleoptera), with descriptions, nomenclature and distributional records. *Acta Musei Nationalis Pragae, Series B, Natural History* 60: 149-164.

HÁVA J. 2006: Dermestidae World (Coleoptera). World Wide Web electronic publication: http://www.dermestidae.wz.cz

HÁVA J. & PROKOP J. 2004: New fossil dermestid-beetles (Coleoptera: Dermestidae) from the Dominican amber of the Greater Antilles, with an appendix listing the all known fossil species of this family. *Acta Societatis Zoologicae Bohemiae* 68: 173-182.

HÁVA J. & PROKOP J. 2006: *Trinodes puetzi* sp. n. (Coleoptera: Dermestidae: Trinodinae), a new fossil Eocene species from Baltic Amber. *Acta Societatis Zoologicae Bohemiae* 70 (in press).

HÁVA J., PROKOP J. & HERRMANN A. 2006: New fossil dermestid beetles (Coleoptera: Dermestidae) from the Baltic amber. *Acta Societatis Zoologicae Bohemiae* 70 (in press).

LAWRENCE F. F. & SLIPINSKI A. 2005: Three new genera of Indo-Australian Dermestidae (Coleoptera) and their phylogenetic significance. *Invertebrate Systematics* 19: 231-261.

WAPPLER T. 2003: Systematik, Phylogenie, Taphonomie und Paläoökologie der Insekten aus dem Mittel-Eozän des Eckfelder Maares, Vulkaneifel. *Clausthaler Geowissenschaften* 2: 1-241.