

Genus	Vol. 18(3): 361-366	Wrocław, 30 IX 2007
-------	---------------------	---------------------

Neotype designation of *Dermestes bifasciatus* OLIVIER, 1790 (Coleoptera: Dermestidae: Attageninae)

JIŘÍ HÁVA¹, MARCIN KADEJ² & VLADIMÍR KALÍK³

¹ Private Entomological Laboratory and Collection,
Únětice u Prahy 37, CZ - 252 62 Praha-západ, Czech Republic;
e-mail: jh.dermestidae@volny.cz, <http://www.dermestidae.wz.cz>

² Department of Biodiversity and Evolutionary Taxonomy, Zoological Institute,
University of Wrocław, ul. Przybyszewskiego 63/77, 51-148 Wrocław, Poland,
e-mail: entomol@biol.uni.wroc.pl

³ Na Okrouhliku 837, CZ – 530 03 Pardubice, Czech Republic

ABSTRACT. Neotype of *Attagenus bifasciatus* (OLIVIER, 1790) is designated, described and illustrated.

Key words: entomology, taxonomy, neotype designation, Coleoptera, Dermestidae, *Attagenus*, Palearctic region

INTRODUCTION

The genus *Attagenus* LATERILLE, 1802 comprises 192 species and subspecies worldwide (MROCKOWSKI 1968, HÁVA 2003, 2007). Two subgenera are recognized, *Attagenus* s. str. and *Aethriostoma* MOTSCHULSKY, 1858.

Members of the *Attagenus bifasciatus* group were inadequately studied. Data based on misidentifications are frequently reported in the literature. They are usually due to poor assessment of species specific characters and their variability. Many taxa described as varieties remain to be examined, just some of them were already studied by modern authors (HÁVA 2005, HÁVA & MIFSUD 2006, HÁVA & KALÍK 2006).

The “*Attagenus bifasciatus* group” belongs to the nominotypical subgenus and is characterized by the elongated body form, elytra lacking yellow transverse fasciae, covered by white or yellow pubescence. The group is distributed in the Mediterranean

region eastwards to Turkmenistan, and according to TAGLIANTI et al. (1999) is a member of the Turano-Mediterranean chorotype.

A neotype of *A. bifasciatus* is here designated in order to preserve stability of nomenclature, according to the Article 75.3. and 75.4. of the ICZN 1999.

MEASUREMENTS AND METHODS

Locality labels are cited in the original version. Separate labels are indicated by slashes (/). Remarks of the authors are given in square brackets [].

Acronyms:

- BL - body length (measured from the anterior margin of pronotum to the apex of the elytra).
- BW - body width (measured maximum linear transverse distance).
- HW - head width (measured as a distance between two lateral head margins at the eyes level).
- PL - pronotum length (measured from the top of the anterior margin to scutellum).
- PW - pronotum width (measured between the two posterior angles of pronotum).
- LMP - length of lateral margin of pronotum (measured as a distance between inferior part of pronotum and exterior angle).

All measurements are given in millimeters. Morphology was observed under phase contrast microscope Nikon Eclipse E 600 with drawing attachment in transparent light. The dissected pieces are conserved in glycerin in microvials pinned under the respective specimens. The photos were taken with a camera Nikon Coolpix 4500.

RESULTS

Attagenus bifasciatus (OLIVIER, 1790)

(Figs 1-11)

Dermestes bifasciatus OLIVIER, 1790: 13.

Attagenus bifasciatus: STURM, 1843: 319.

ORIGINAL DESCRIPTION

“14. Dermeste bifascié.

Dermestes bifasciatus. Pl. 2. fig. 16. a. b.

D. Noir; élytres avec deux bandes ondées, grisâtres.

D. Niger, elytris fasciis duabus undatis cinereis.

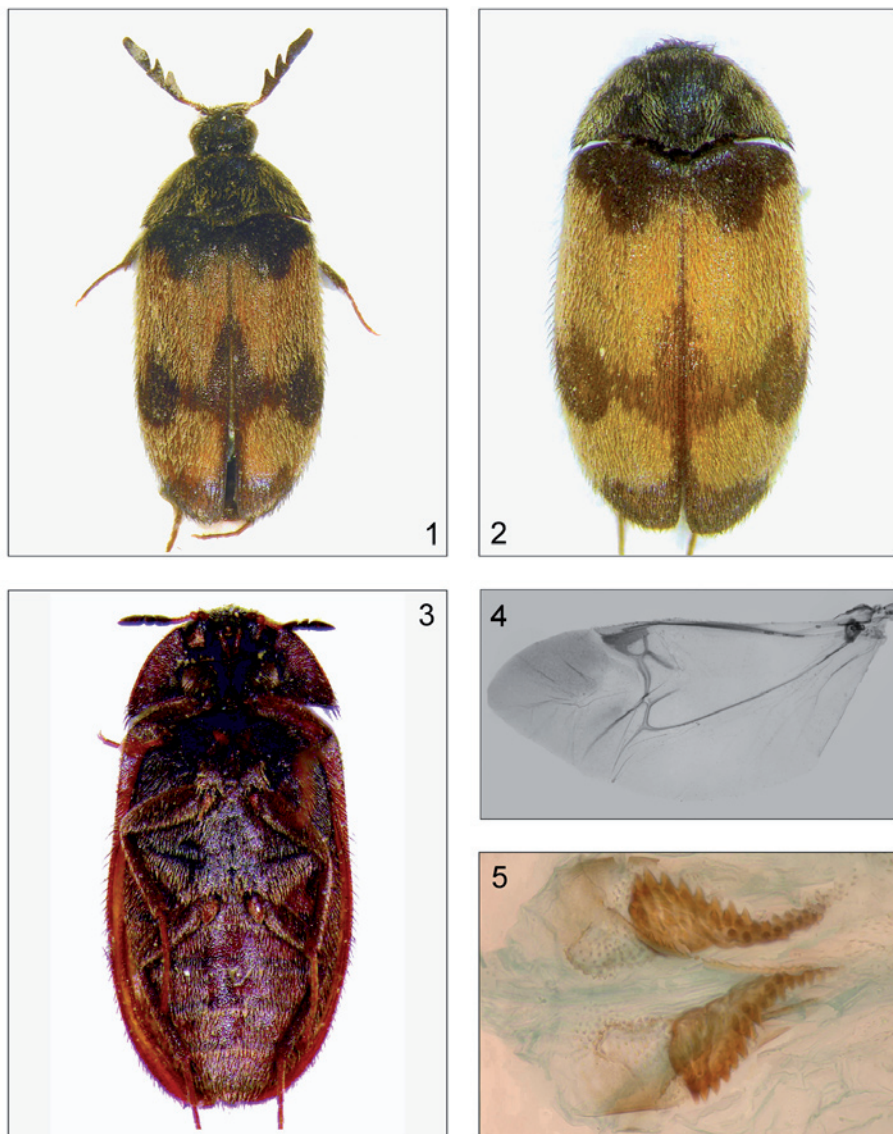
Magnitudo et statura Derm. Trifasciati. Caput nigrum. Thorax nebulosus. Elytra nigra, fasciis duabus undatis cinereis, prima majori. Corpus subtus pedesque nigra, cinereo nitidula.

Il ressemble un peu, pour la forme et la grandeur, au *Dermeste trifascié*. Le corps est noir et couvert d'un léger duvet cendré, luisant. La tête est noire. Le corcelet est noir et couvert de poils roussâtres. L'écusson est noir, petit et triangulaire. Les élytres sont noires,

avec trois bandes ondées, dont la première, placée vers la base, est plus grosse, l'autre est un peu interrompue à la suture.

Il se trouve dans la Sicile, sur les fleurs.

Du Cabinet de M. d'ORCY“.



1-5. *Attagenus bifasciatus* (OLIVIER, 1790): 1 - habitus dorsal aspect ♂ (neotype); 2 - habitus dorsal aspect ♀; 3 - habitus ventral aspect (♀); 4 - wing (neotype); 5 - sclerites in bursa copulatrix (♀)

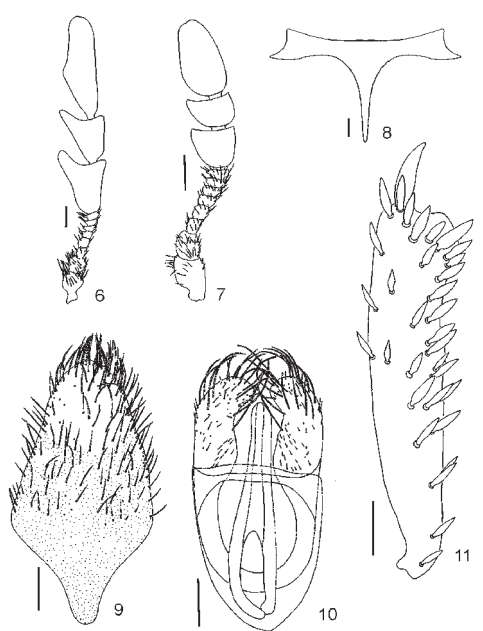
TYPE MATERIAL

Neotype (male) labelled: "Sicilia, Reitter". The specimen bears red, printed label as follows: "NEOTYPE, *Dermestes bifasciatus* Olivier 1790, Jiří Háva design. 2006" and a white label: "Attagenus bifasciatus (Olivier, 1790), Jiří Háva det. 2006". Neotype deposited in Museum d'histoire naturelle, Genève, Switzerland.

A female specimen from: "Sicilia, Reitter" deposited in the Muséum d'histoire naturelle, Genève, Switzerland was used for the description of illustrations given in the present paper.

DESCRIPTION

Male (Fig. 1). Measurements (mm): BL 4.05 BW 1.85 HW 0.73 PL 0.95 PW 1.81 LMP 0.93. Cuticle black-brown on dorsal surfaces (Fig. 1) with yellowish fasciae, brown on ventral surfaces (Fig. 3); generally large and elongate. Head finely punctate with long brown pubescence. Palpi entirely brown; pubescence on mentum dense. Ocellus present. Antennae brown, 11-segmented; antennal club 3-segmented (Fig. 6, 7), dark brown. Pronotum, similarly to head, finely punctate with long brown and yellow pubescence; brown pubescence forming one large spot distally and four small circular spots laterally. Prosternal process as in Fig. 8. Scutellum triangular, finely punctate as pronotum, with short brown pubescence. Elytra finely punctate; cuticle black-brown with two light-brown bands covered by long yellow pubescence; anterior



6-11. *Attagenus bifasciatus* (OLIVIER, 1790): 6 - antenna of male (neotype); 7 - antenna of female; 8 - prosternal process (neotype); 9 - IXth abdominal sternite (neotype); 10 - aedeagus (neotype); 11 - tibia (neotype).

Scale bar in figs 6-11: 0.1 mm

band broad, on each elytron reaching suture and touching humeri, apical band reaching suture; other parts with long brown pubescence. Epipleuron short with yellow pubescence. Wings as in Fig. 4. Legs brown with yellow pubescence; tibiae with short brown thorns (Fig. 11). Meso-metasternum with short yellow pubescence. Abdominal sternites with long, yellow, recumbent pubescence. IXth abdominal sternite as in Fig. 9. Male genitalia in Fig. 10.

Female characters (Figs 2-3, 7). Measurements (mm): BL 3.55 BW 1.85 HW 0.63 PL 0.85 PW 1.53 LMP 0.93. External characters corresponding to those in male except for the form of antennal club (Fig. 7); sclerites in bursa copulatrix as in Fig. 5.

VARIABILITY

A. bifasciatus shows considerable variation in the size and the shape of elytral stripes; bands can have different width, however the number of them is constant: always two.

REMARKS

According to the original description, the type material was deposited in “Du Cabinet de M. d’ORCY“, which is, according to HORN et. al. (1990), in Muséum Genève. However, the material was transferred before the World War II to the Museum in Hamburg. The type specimen was destroyed along with another type material and therefore the neotype is designated. Furthermore, the species shows great intraspecific variation. Important diagnostic features include: antenna and aedeagus (male), antenna and sclerites in bursa copulatrix (female). All characters mentioned above were described and illustrated.

ACKNOWLEDGEMENTS

We would like to thank to I. LÖBL (Muséum d’histoire naturelle, Genève, Switzerland) and L. BOROWIEC, D. TARNAWSKI, and B. TOMASIEWICZ (Zoological Institute, Wrocław University) for their helpful comments.

REFERENCES

- 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.
- , 2005. New synonyms, lectotype designations, and new records in Dermestidae (Coleoptera: Bostrichidae). Genus, Wrocław, **16**: 341-347.
- 2007. Dermestidae World (Coleoptera). World Wide Web electronic publication: <http://www.dermestidae.wz.cz>
- HÁVA, J., KALIK, V., 2006. Redescription and new synonymy of *Attagenus multinotatus* PIC, 1916 (Coleoptera: Dermestidae: Attageninae) probably from India. Entomological Problems, **36**(2): 95-96.
- HÁVA, J., MIFSUD, D., 2006. The dermestid beetles (Coleoptera: Dermestidae) of the Maltese Archipelago (Central Mediterranean). Studies and Reports of District Museum Prague-east, Taxonomical Series **2**: 51-63.
- HORN, W., KAHLE, I., FRIESE, G., GAEDIKE, R., 1990. Collectiones entomologicae. Teil I: A bis K. pp. 1-220. Teil II: L bis Z. pp. 221-573. Berlin: AdL, DDR.

- ICZN 1999. International Code of Zoological Nomenclature. Fourth edition. International trust of zoological nomenclature, London, xxix + 306 pp.
- MROCKOWSKI, M., 1968. Distribution of the Dermestidae (Coleoptera) of the world with a catalogue of all known species. *Annales Zoologici*, Warszawa, **26**: 15-191.
- OLIVIER, A. G., 1790.: Entomologie, ou histoire naturelle des Insectes, Avec leurs caracteres génériques et spécifiques, leur description, leur synonymie, et leur figure enluminée. Coléoptères. Tome Second. No. 9. *Dermeste*. 16 pp., No. 14 *Anthrene*. 10 pp. Paris.
- STURM, J., 1843. Catalog der Kaefer – Sammlung von Jacob STURM. Nürnberg: J. Sturm, xii + 386 pp., 6 pls.
- TAGLIANTI, A. V., AUDISIO, P. A., BIONDI, M., BOLOGNA, M. A., CARPANETO, G. M., BIASE, A. DE, FATTORINI, S., PIATTELLA, E., SINDACO, R., VENCHI, A. ZAPPAROLI, M., 1999. A proposal for a chorotype classification of the Near East fauna, in the framework of the Western Palearctic region. *Biogeographia*, **20**: 31-59.