

## Contribution to the Dermestidae from Eritrea (Coleoptera: Bostrichoidea)

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ABSTRACT. Three following species from Eritrea are described, illustrated and compared with related species: *Anthrenus (Anthrenops) paraclaviger* n. sp., *Attagenus iserlei* n. sp. and *Attagenus katonai* n. sp.

Key words: entomology, taxonomy, new species, Coleoptera, Dermestidae, *Anthrenus*, *Attagenus*, Eritrea.

### INTRODUCTION

In the material studied recently we have found specimens representing new species within genera *Attagenus* LATREILLE, 1802 and *Anthrenus* GEOFFROY, 1762 and their detailed descriptions are given below. The collector of the presented specimens was „KATONA“ [= nickname of the hungarian traveller, natural historian, biologist and collector Kálmán KITTENBERGER (1881-1958)]. The explanation of the nickname was published by KITTENBERGER (1958).

Genus *Attagenus* LATREILLE, 1802 currently includes ca. 205 species, 121 of species within genus recorded in Africa, but only three species: *Attagenus apicalis* PIC, 1943, *A. asmaranus* PIC, 1943 and *A. smirnovi* ZHANTIEV, 1973 are known from Eritrea (HÁVA 2003, 2008).

Genus *Anthrenus* GEOFFROY, 1762 currently includes ca. 216 species, of which 80 species occur in Africa, but only four species: *Anthrenus (Anthrenodes) wittmeri* MROCKZKOWSKI, 1980, *A. (Anthrenops) coloratus* REITTER, 1881b, *A. (Anthrenops) subclaviger* REITTER, 1881 and *A. (Anthrenus* s. str.) *crustareus* REITTER, 1881, are listed from Eritrea (HÁVA 2003, 2008).

## MEASUREMENTS AND METHODS

## Explanation of abbreviations:

HNHM	Hungarian Natural History Museum, Budapest, Hungary;
JHAC	Jiří HÁVA, Private Entomological Laboratory and Collection, Praha-západ, Czech Republic;
MKCP	Marcin KADEJ, Department of Biodiversity and Evolutionary Taxonomy Collection, University of Wrocław, Poland.
BL	body length (measured from the head anterior margin to the apex of the elytra).
BW	body width (measured between two anterolateral humeral calli).
HW	head width (measured as a distance between two lateral head margins on 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).
SL	sternites length (measured from the anterior margin to the apex of posterior margin).
SW	sternites width (measured between two lateral margins in the anterior part of sternites).
AFL	antennal fossa length (measured along the antennal fossa).
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. The morphological structures were observed under phase contrast microscope Nikon Eclipse E 600 with drawing attachment in transparent light in glycerin. All morphological structures were put into plastic micro vials with glycerin under proper specimens. Photos were taken with the camera Nikon Coolpix 4500.

The distribution and classification of Dermestidae after HÁVA (2007).

## DESCRIPTION

***Anthrenus (Anthrenops) paraclaviger n. sp.***

(Figs 1-8)

= *Anthrenus subclaviger*: HÁVA, 2004: 82.

## TYPE MATERIAL

Holotype (male): „Africa or., Katona [Igt.]“\ „Assab [Eritrea, 13°0'N 42°44'E], 1907“ (HNHM). Paratypes (7 spec.): the same data as holotype, (3 HNHM, 1 MKCP, 3 JHAC). Specimens provided with red, printed label: „HOLOTYPE [or PARATYPE, respectively] *Anthrenus (Anthrenops) paraclaviger n. sp.* J. Háva & M. Kadej det. 2008“.

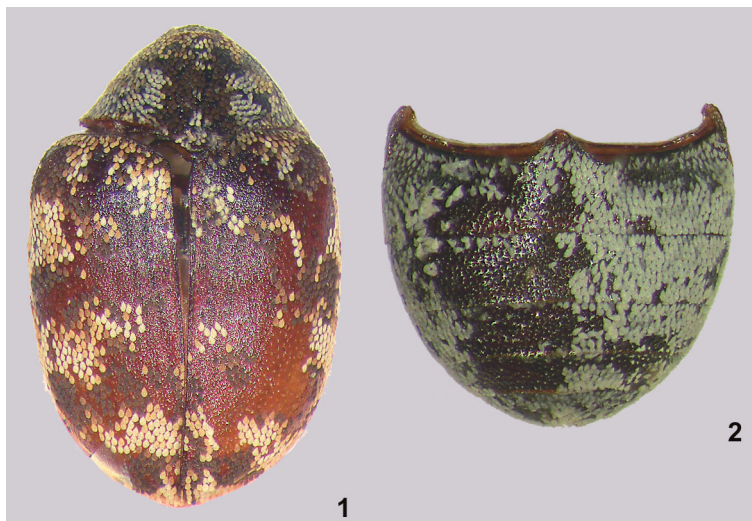
## DESCRIPTION

Body convex, elongate, covered by scales (BL: 2.4-2.45; BW: 1.25-1.3) (Fig. 1, 2). Head with big convex, oval eyes. Frons with median ocellus, covered with brown scales. Antenna light-brown, 9-segmented, antennal club 3-segmented (Fig. 3), covered densely with brown pubescence. Antenna occupies whole cavity of antennal fossa. Antennal fossa completely open (AFL: 0.2) along lateral margin of the pronotum (LMP: 0.5).

Dorsal and ventral surface of integument brown, slightly punctate, covered with scales (Fig. 8). Pronotum (PL: 0.6; PW: 1.1): covered with mixed yellowish and dark brown and brown scales in the central part, white scales on the angles and central bottom apex. Elytra without clearly distinguishable pattern of bands or lines, covered with irregular, mixed white, brown and yellow scales. Ventral surface with abdominal sternites I-V covered with white scales only (SL: 1.1-1.15; SW: 1.3-1.35). Legs brown, covered with white scales on dorsal surface. Tarsus with two tarsal claws slightly curved. Male genitalia as in figs. 4-5. Parameres U-shaped, covered with numerous short setae. Median lobe L-shaped, wide posteriorly, with the apex slightly curved (Fig. 5). Ninth abdominal sternite as in Fig. 6. Apex of the lacinia with the sclerotized, sharp, double spine (Fig. 7).

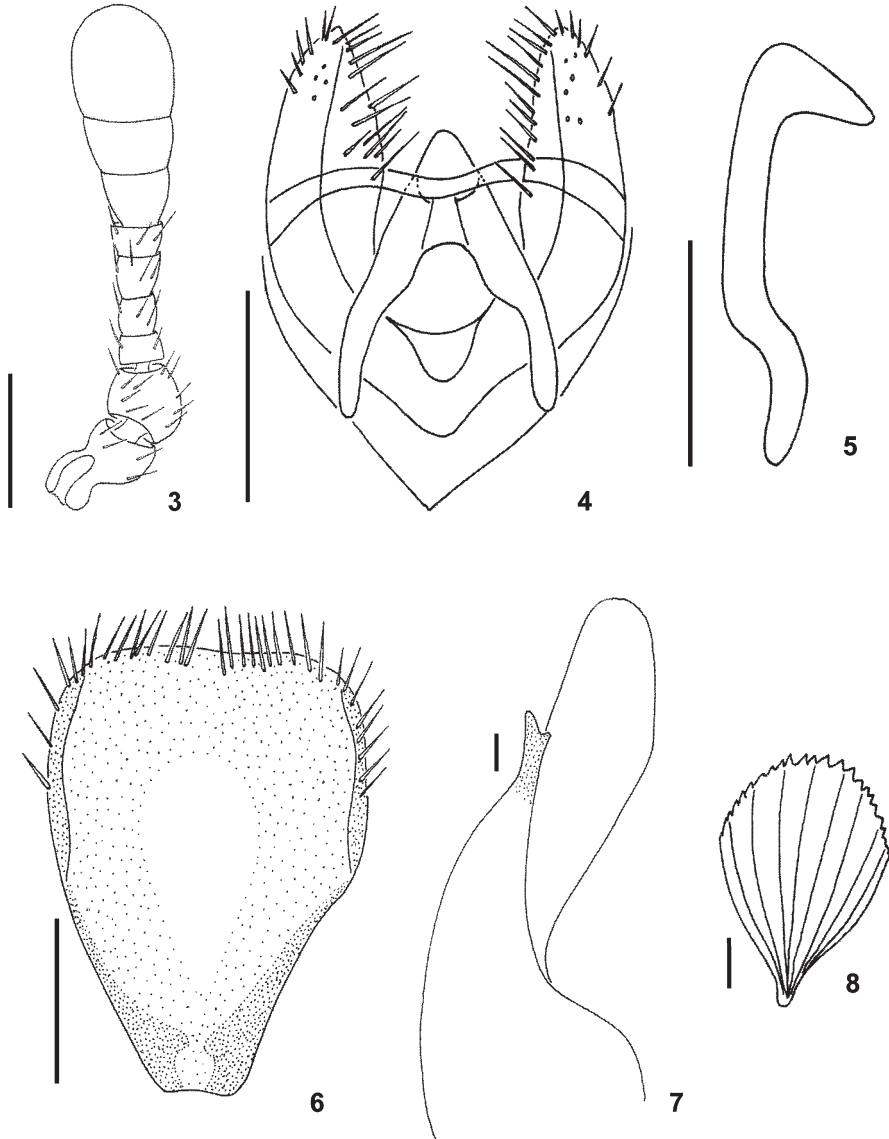
## DIFFERENTIAL DIAGNOSIS

The new species is habitually similar to *A. klapperichi* KADEJ & HÁVA, 2006, *A. umbellatarum* CHOBOUT, 1898, *A. subclaviger* REITTER, 1881a and *A. semenovi*. In a case of *A. klapperichi*, *A. umbellatarum* and *A. semenovi* ZHANTIEV, 1976 easy identification is possible on a base of (1) total number of the antennal segments: ten (*A. klapperichi*, *A. umbellatarum*, *A. semenovi*), nine (*A. paraclaviger*). The main differences between *A. subclaviger* are connected with (1) the number of the segments in



1, 2. *Anthrenus (Anthrenops) paraclaviger* n. sp.: 1 – habitus (dorsal aspect); 2 – abdominal sternites I-V

the antennal club: one segment (*A. subclaviger*), three segments (*A. paraclaviger* n. sp.); (2) morphology of IX abdominal sternite: rhomboidal, nearly as wide at the apex as at the base (*A. subclaviger*), pallet-shaped, wide at apex, thin at base (*A. paraclaviger* n. sp.); (3) morphology of the apex of lacinia: sclerotized, sharp spine (*A. subclaviger*), sclerotized, sharp, double spine (*A. paraclaviger* n. sp.).



3-8. *Anthrenus (Anthrenops) paraclaviger* n. sp.: 1 – habitus (dorsal aspect); 2 – abdominal sternites I-V; 3 – antenna; 4 – male genitalia; 5 – median lobe (lateral view); 6 – 9<sup>th</sup> abdominal sternite; 7 – galea with lacinia; 8 – scales (Scale bar 0.1 mm: figs. 3-6; 0,01 mm: figs. 7-8)

## REMARKS

HÁVA (2004) erroneously recorded the species from Eritrea as *Anthrenus subclaviger* REITTER, 1881.

## ETYMOLOGY

Because of significant morphological similarities with *A. subclaviger* the name of new species was created by adding affix *para* (= like, kind of, almost, near, quasi) to the root of the word *claviger*.

***Attagenus iserlei* n. sp.**

(Figs 9-10, 13-14)

## TYPE MATERIAL

Holotype (male): „Africa or., Katona [lgt.]“ \ „Gibdo [Eritrea], [1]907.v“ (HNHM). Paratypes (10 spec. unsexed): the same data as holotype (8 HNHM, 2 JHAC); (70 spec. unsexed): „Africa or., Katona [lgt.]“ \ „Assab [Eritrea, 13°0'N 42°44'E], 1907. I-III“ (60 HNHM, 8 JHAC, 2 MKCP). Specimens provided with red, printed label: „HOLOTYPE [or PARATYPE, respectively] *Attagenus iserlei* n. sp. J. Háva & M. Kadej det. 2008“.

## DESCRIPTION

Body rounded (Fig. 9), brown on dorsal and ventral surfaces (BL: 2.75-2.9; BW: 1.55-1.75). Head finely punctated with long grey/yellowish pubescence. Palpi brown. Eyes large, convex, oval. Ocellus on front present. Antennae brown, 11- segmented, antennal club 3- segmented, terminal antennal segment almost circular (Fig. 13). Pronotum and elytra finely punctate, covered with grey/yellowish and brown pubescence. On the elytra five transverse, continuous bands with grey/yellowish pubescence are visible. Scutellum triangular with grey/yellowish pubescence. Prosternal procces long and broad. Venter, legs and abdominal sternites I-V covered with short light-brown pubescence (Fig. 10). Male genitalia as in fig. 14.

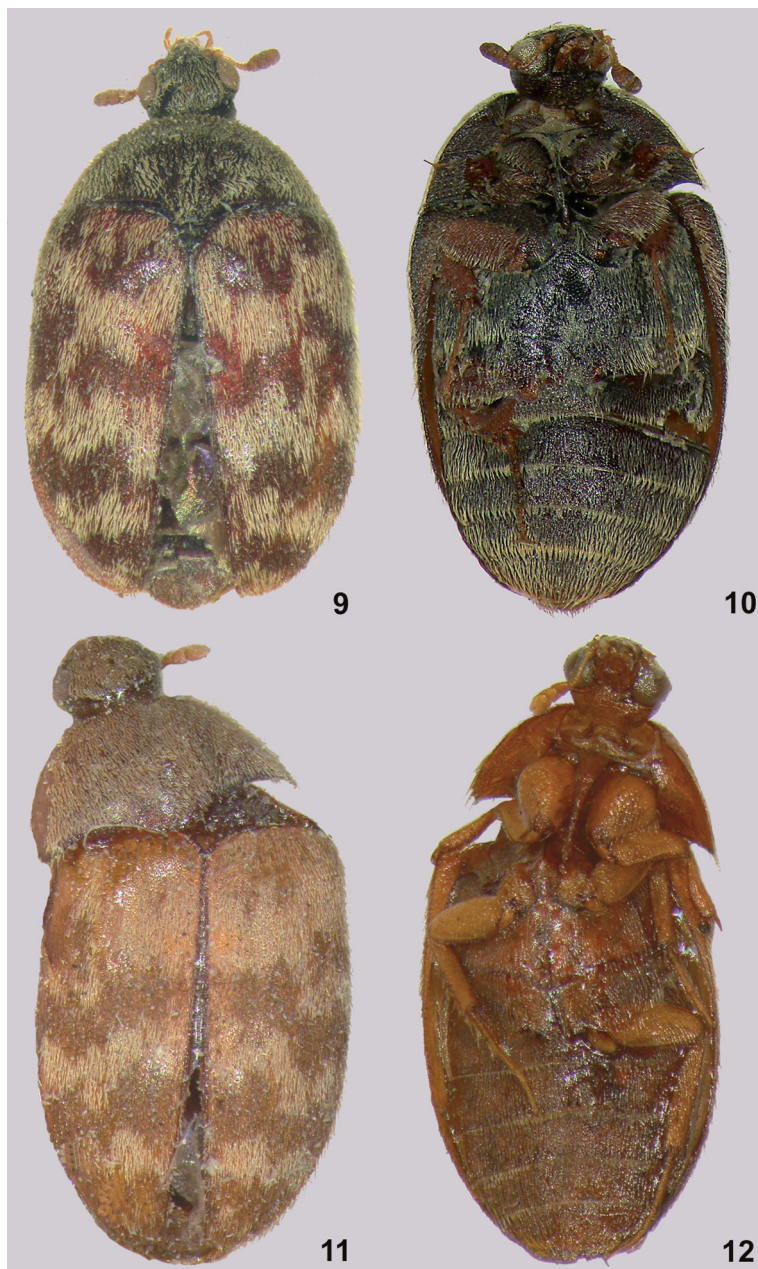
Female externally similar to male, differs only by the form of antennae, especially antennal club, terminal segment is small and almost circular.

## DIFFERENTIAL DIAGNOSIS

The new species very similar to *A. posticalis* FAIRMAIRE, 1879, but differs from it by the morphology of prosternal procces (long and broad in *A. iserlei* and short and broad in *A. posticalis* FAIRMAIRE, 1879), morphology of antennae and structure of male genitalia; from other species it differs by the structure of male genitalia and colour patterns on elytra.

## ETYMOLOGY

Patronymic, the species name is dedicated to the Jan ISERLE (Pardubice, Czech Republic).



9, 10. *Attagenus iserlei* n. sp.: 9 – habitus dorsal aspect; 10 – habitus ventral aspect; 11, 12. *Attagenus katonai* n. sp.: 11 – habitus dorsal aspect; 12 – habitus ventral aspect

## REMARK

The new species was determined by Mr. KALÍK and labelled *Attagenus iserlei* n. sp., but has never been published before.

***Attagenus katonai* n. sp.**

(Figs 11-12, 15)

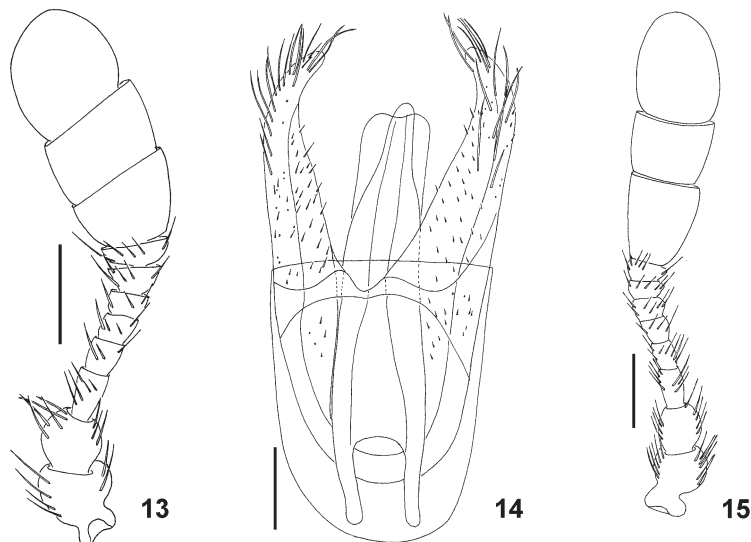
## TYPE MATERIAL

Holotype (female): „Africa or., Katona [lgt.]“ \ „Assab [Eritrea, 13°0'N 42°44'E], 1907“, (HNHM). Paratypes (2 females): the same data as holotype, (1 HNHM, 1 JHAC). Specimens provided with red, printed label: „HOLOTYPE [or PARATYPE, respectively] *Attagenus katonai* n. sp. J. Háva & M. Kadej det. 2008“.

## DESCRIPTION

Body elongate (Fig. 11), light-brown on dorsal and ventral surfaces (BL: 2.9; BW: 1.45). Head finely punctate with long grey/yellowish pubescence. Palpi brown. Eyes large, convex, oval. Ocellus on front present. Antennae brown, 11- segmented, antennal club 3- segmented, terminal antennal segment a little elongate (Fig. 15). Pronotum and elytra finely punctated. Pronotum covered with grey/yellowish pubescence only. On the elytra three transverse, continuous bands with grey/yellowish pubescence are visible. First of them divided on two lines close to external margin of elytra. Scutellum triangular with short light brown pubescence. Scutellum triangular with grey/yellowish pubescence. Prosternal procces very long and narrow. Venter, legs and abdominal sternites I-V covered with short light-brown pubescence (Fig. 12).

Male unknown.



13-15. *Attagenus iserlei* n. sp.: 13 – male antenna; 14 – male genitalia; *Attagenus katonai* n. sp.: 15 – antenna of female (Scale bar 0.1 mm)

## DIFFERENTIAL DIAGNOSIS

The new species is habitually similar to the precedent species, but differs from it in the (1) form of body: rounded (*A. iserlei* n. sp.), elongated (*A. katonai* n. sp.) (2) morphology of antennae: terminal antennal segment almost circular (*A. iserlei* n. sp.), slightly elongate (*A. katonai* n. sp.) and (3) number of fasciae on elytra: five transverse, continuous bands (*A. iserlei* n. sp.), three transverse, continuous bands (*A. katonai* n. sp.); the new species differs in the morphology of antennae from all other known species.

## ETYMOLOGY

The new species is named after the nickname of Kálmán KITTENBERGER (1881-1958) - „KATONA“.

## REMARK

The new species was determined by Mr. KALÍK and labelled as *Attagenus katonensis* n. sp., but has never been published before.

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