

## Contribution to the knowledge of Dermestidae (Coleoptera) from Australia - Part 3. Revision of the genus *Myrmeanthrenus* Armstrong, 1945

Jiří HÁVA

Department of Forest Protection and Entomology,  
Faculty of Forestry and Wood Sciences,  
Czech University of Life Sciences,  
Kamýčká 1176, CZ-165 21, Prague 6 - Suchbát, Czech Republic  
e-mail: jh.dermestidae@volny.cz

**Taxonomy, new subgenus, new species, Coleoptera, Dermestidae, Megatomini, *Myrmeanthrenus*, *Weiranthrenus*, Australia**

**Abstract.** The Australian dermestid genus *Myrmeanthrenus* Armstrong, 1945 is revised. The following taxa are described, illustrated and compared: *Myrmeanthrenus (Myrmeanthrenus) fasciatus* sp. nov. and *Myrmeanthrenus (Weiranthrenus* subgen. nov.) *planus* sp. nov.

### INTRODUCTION

The dermestid genus *Myrmeanthrenus* described by Armstrong (1945) with one type species *Myrmeanthrenus frontalis* Armstrong, 1945 from Australia-Victoria. The genus belonged to the subfamily Megatominae, tribe Megatomini, subtribe Anthrenocerina (Háva 2015). Mroczkowski (1968) mentioned this genus and type species in world catalogue, the same Háva (2015). Háva (2004) keyed this genus in world genera keys. Kiselyova & McHugh (2006) and Kiselyova (2008) described the larvae and discussed systematic position of the genus according to the larval morphology. The present article follows published articles about Australian Dermestidae published by Háva (2017a,b, Háva & Horák 2017).

### MATERIAL AND METHODS

The size of the beetles or of their body parts can be useful in species recognition and thus, the following measurements were made:

total length (TL) - linear distance from anterior margin of pronotum to apex of elytra.  
elytral width (EW) - maximum linear transverse distance.

Moreover, following abbreviations refer to the collections, in which the examined material is deposited:

ANIC Australian National Insects Collection, SCIRO Entomology, Canberra, Australia.

JHAC Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-west, Czech Republic.

Specimens of the species described here are provided with a red, printed label with text as follows: „HOLOTYPE [or PARATYPE, respectively] *name of species* sp. nov. Jiří Háva det. 2016”.

## RESULTS

### Subfamily Megatominae Leach, 1815

#### Tribe Megatomini Leach, 1815

#### Subtribe Anthrenocerina Háva, 2015

### Genus *Myrmeanthrenus* Armstrong, 1945

*Mirmeoanthrenus* [sic!]: Zhantiev, 1976: 25.

**Type species:** *Myrmeanthrenus frontalis* Armstrong, 1945: 49.

### *Myrmeanthrenus (Myrmeanthrenus) frontalis* Armstrong, 1945

(Figs. 1-4)

*Myrmeanthrenus frontalis* Armstrong, 1945: 49.

*Myrmeanthrenus frontalis*: Mroczkowski, 1968: 125; Matthews, 1985: 10; Háva, 2004: 154; Háva, 2015: 152; Kiselyova & McHugh, 2006: 473; Kiselyova, 2008: 334.

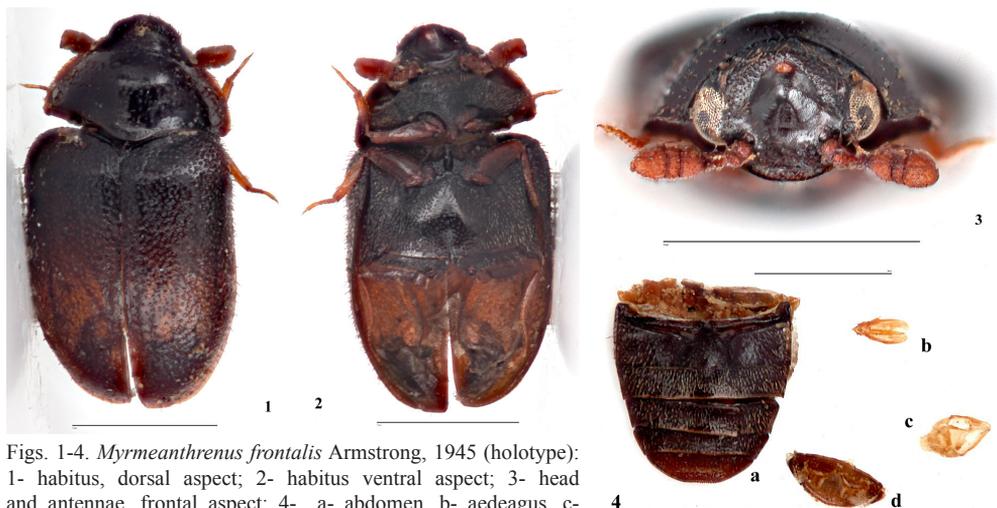
**Type material.** Holotype (♂): „Vict. [Victoria], Tallangatta No., Ejnar Fischer“ / „in ants' nests under stones“ / „n.g. of dermestidae“ / *Myrmeanthrenus frontalis* Armstrong“, (ANIC). Allotype (♀): the same data as holotype, (ANIC).

**Other material studied:** „33.31S 140.24E, SA, 79 km NNW of Renmark, 12 Dec.1995-25.Jan.1996, Flightintercept-pitfall trap, K. R. Pullen“ / „Caperum Station, Bookmark Biosphere Reserve, Invertebrate Survey“ / „*Myrmeanthrenus frontalis* Armstrong, det. A. Calder 1996“ / „*Myrmeanthrenus* sp. nov. det. T. A. Weir 2013“, 1 ♂, (ANIC); the same data but 24.Jan.-20.Feb.1996, 1 ♂, (ANIC); the same data but 11.Oct.-9.Nov.1995, 1 ♂, (ANIC); the same data but 6.Sept.-12.Oct.1995, 1 ♂, (JHAC).

**Original description.** „Genus *Myrmeanthrenus*, n. gen.“. Body compact, finely setose. Femora and tibiae strongly compressed, tarsi slender. Head abnormal, produced widely and anteriorly elevated, with a large cavity between the eyes, at the tip of which the ocellus is situated; eyes visible from above. Prosternum produced anteriorly concealing mouth parts, with large foveate antennal fossae situated along the anterior margins. Mesosternum narrow, entirely bisected. Antennae short, 11-segmented, segments 1 and 2 moniliform, 3 to 8 short, strongly compressed, 9 to 11 forming a stout ovate club.“

„*Myrmeanthrenus frontalis*, n. sp. Ovate, brunneous, nitid, sparsely clothed with long brunneous setae, antennae and legs castaneous. Head produced anteriorly above eyes and strongly elevated at apex, underside of this projection with an extensive deep fovea continuing down between eyes, having the margins thickly rounded. Pronotum transverse, widest at base, convex, sides evenly rounded to apex, base moderately bisinuate, posterior angles acute, base and sides slightly margined, sparsely and lightly punctate. Elytra three-

fourths as wide as long, base slightly narrower than prothorax, widening to shoulders thence almost parallel till apical one-third, this evenly rounded, coarsely and fairly closed punctate with two perceptible striae on either side of suture. Size: 2.75 mm x 1.5 mm.



Figs. 1-4. *Myrmeanthrenus frontalis* Armstrong, 1945 (holotype): 1- habitus, dorsal aspect; 2- habitus ventral aspect; 3- head and antennae, frontal aspect; 4- a- abdomen, b- aedeagus, c- abdominal ventrite 10<sup>th</sup>, d- pygidium (photo by C. Lemann).

**Host ants:** *Anonychomyrma*, *Iridomyrmex*, *Stigmacros foreli*, (Háva 2015).

**Ecology.** Adult-inquiline, myrmecophilous, terrestrial, volant, larvae-scavenger (Kiselyova & McHugh, 2006).

**Distribution.** The species known from Australia. Calder (2006) and Háva (2015) mentioned following distribution: New South Wales (SW coastal), South Australia (S Gulfs), Victoria (Murray-Darling basin), Western Australia. The distribution needs corrections as follows. The species *frontalis* is distributed only in Victoria and South Australia. Other distribution mentioned by Calder (2006) and Háva (2015) belongs to other following new species.

***Myrmeanthrenus (Myrmeanthrenus) fasciatus* sp. nov.**

(Figs. 5-11)

**Type material.** Holotype (♂): „35.16S 149.06E Black Mt. ACT [Australian Capital Territory], 600 m, Nov.1987, Weir, Lawrence, Dressler” / “flight intercept window, trough trap” / “Genitalia prep. DM-067♂, A. Calder 1996 [genitalia were put into plastic micro vials with glycerol under proper specimen.]”, (ANIC). Paratype (♀): „35.16S 149.06E ACT [Australian Capital Territory], Black Mt., behind CSIRO [Canberra], 3 Mar. 2000, O. Khinzaw [leg.], FIT” / „*Myrmeanthrenus* sp. det. T. A. Weir 2008“, (ANIC).

**Description.** Male. Body (Fig. 5) measurements (mm): TL 2.3 EW 1.4; cuticle dark brown on dorsal surfaces, brown on ventral surfaces; in general small and oval, covered with brown and white recumbent setation. Head abnormal, produced widely and anteriorly



Figs. 5-11. *Myrmeanthrenus fasciatus* sp. nov.: 5- habitus of male, dorsal aspect; 6- habitus of female, dorsal aspect; 7- antenna of male; 8- antenna of female; 9- head, frontal aspect; 10- abdomen; 11a- male genitalia, dorsal aspect, 11b- median lobe, lateral aspect (photos by J. Háva).

elevated, with a large cavity between the eyes, at the tip of which the ocellus is situated (Fig. 9); finely punctate, with white recumbent setation. Palpi entirely brown. Antennae, brown, with 11 antennomeres, antennal club with 3 antennomeres (Fig. 7), with light brown setation. Pronotum finely punctate like head, covered with brown and white recumbent setation; brown setation covered by disc. Scutellum triangular, finely punctate as pronotum, without setation. Elytra finely punctate, on each humerus with a large bump; cuticle dark brown, covered with brown and white setation. Each etytron with two, transverse, fasciae of white setation (Figs. 5-6). Epipleura dark brown, finely punctate, covered with white setation. Mesosternum and metasternum covered with white setation; metasternum coarsely punctate; prosternal process broad. Abdominal ventrites finely punctate, covered with white, recumbent setation. Abdominal ventrite V with two flat, circular holes. Legs brown, with

light brown setation; tibiae without short spines. Male genitalia as in Fig. 11a-b, slightly damaged; parameres broad (Fig. 11a), median lobe very narrow and long (Fig. 11b).

**Female.** Body (Fig. 6) measurements (mm): TL 2.5 EW 1.5. Externally similar to male but differs from it by the structure of antennae (Fig. 8).

**Differential diagnosis.** The new species is similar to *Myrmeanthrenus frontalis* Armstrong, 1945 but differs from it by the characters in the following key; from similar species *Anthrenocerus stigmaphilus* Armstrong, 1949, differs by the produced widely and anteriorly elevated head.

**Etymology.** The name *fasciatus* refers to its setation on dorsal surface of elytra.

**Distribution.** Australia: Australian Capital Territory.

#### subgenus *Weiranthrenus* subgen. nov.

**Type species:** *Myrmeanthrenus (Weiranthrenus) planus* sp. nov.

**Description.** Body (Fig. 12) cuticle black on dorsal and ventral surfaces, in general small and oval, covered with short brown recumbent setation. Head abnormal, produced widely and anteriorly elevated, with a large, flat cavity between the eyes, at the tip of which the ocellus is situated (Fig. 14); finely punctate, with white recumbent setation. Palpi entirely brown. Antennae dark-brown with 11 antennomeres, antennal club with 6 antennomeres (Fig. 15).

**Differential diagnosis.** See the following key.

**Etymology.** Composed with last name of Australian entomologist Dr. Tom A. Weir and genus name *Anthrenus*. Masculine gender.

#### *Myrmeanthrenus (Weiranthrenus) planus* sp. nov.

(Figs. 12-15)

**Type material.** Holotype (♀): „Australia: NSW: Sydney Putty Road, East Kurrajong, Morilla Road tumoff, 17 Dec 1994, A. Sundholm, R de Keyzer, on flowers of *Leptospermum*“ / „*Myrmeanthrenus* sp. nov., det. T. A. Weir 2009“, (ANIC).

**Description.** Female. Body (Fig. 12) measurements (mm): TL 2.6 EW 1.8; cuticle black on dorsal and ventral surfaces, in general small and oval, covered with short brown recumbent setation. Head abnormal, produced widely and anteriorly elevated, with a large, flat cavity between the eyes, at the tip of which the ocellus is situated (Fig. 14); finely punctate, with white recumbent setation. Palpi entirely brown. Antennae dark-brown with 11 antennomeres, antennal club with 6 antennomeres (Fig. 15). Pronotum coarsely punctate laterally, finely

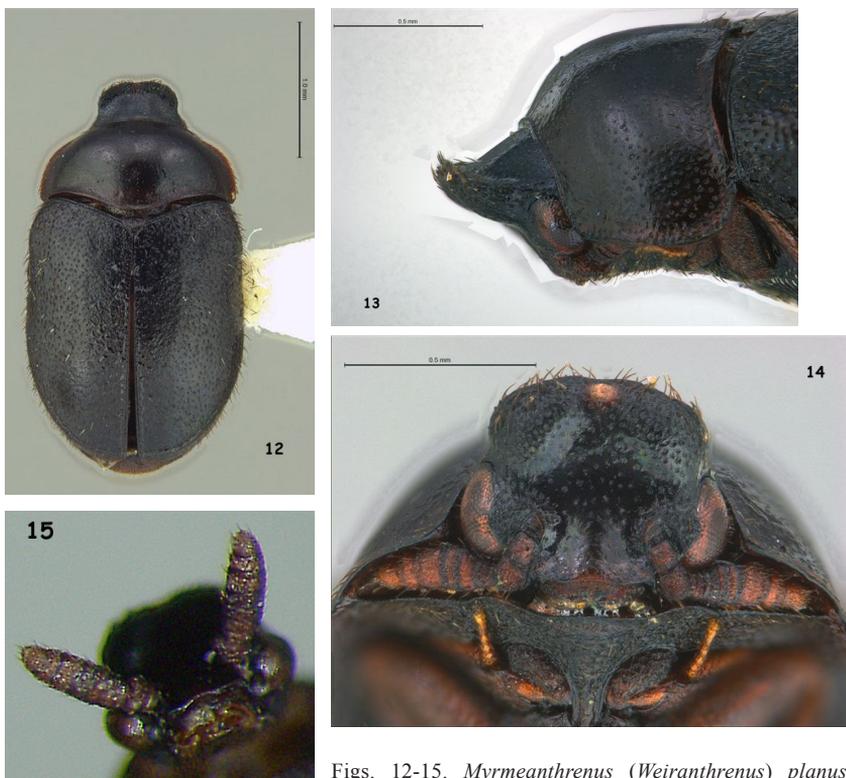
discally, covered with brown, short recumbent setation. Scutellum triangular, finely punctate as head, without setation. Elytra coarsely punctate, on each humerus with a large bump; cuticle black, covered with brown recumbent setation. Epipleura black, finely punctate, covered with brown setation. Mesosternum and metasternum covered with brown setation, coarsely punctate; metasternum coarsely punctate; prosternal process broad. Abdominal ventrites finely punctate, covered with brown, recumbent setation. Abdominal ventrite V with two flat, circular holes. Legs dark brown, with light brown setation; tibiae without short spines.

**Male.** Unknown.

**Differential diagnosis.** See the following key.

**Etymology.** The name *planus* refers to its flat head.

**Distribution.** Australia: New South Wales.



Figs. 12-15. *Myrmeanthrenus (Weiranthrenus) planus* sp. nov. (holotype): 12- habitus, dorsal aspect; 13- pronotum and head, lateral aspect; 14- head, frontal aspect; 15- antenna of female (photos: 12-14 by T. A. Weir, photo: 15 by J. Háva).

## KEY TO SPECIES OF GENUS *MYRMEANTHRENUS*

- 1(2) antennae with 11 antennomeres, antennal club with 6 antennomeres; head with large flat cavity between the eyes ..... *Myrmeanthrenus* (*Weiranthrenus* subgen. nov.) *planus* sp. nov.
- 2(1) antennae with 11 antennomeres, antennal club with 3 antennomeres; head with median cavity between the eyes ..... *Myrmeanthrenus* (s. str.) Armstrong, 1945
- 3(4) each elytron with two broad, transverse fasciae of white setation, head cavity between the eyes (Fig. 10) ..... *M. fasciatus* sp. nov.
- 4(3) elytra without white fasciae, head cavity between the eyes (Fig. 9) ..... *M. frontalis* Armstrong, 1945

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