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A CONTRIBUTION TO KNOWLEDGE OF DERMESTIDAE (COLEOPTERA: BOSTRICHIFORMIA) FROM THE PHILIPPINES

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Two new species, *Attagenus (Aethriostoma) philippinensis* sp. nov. and *Anthrenus (Nathrenus) hrdlickai* sp. nov., from the Philippines are described, illustrated and compared with similar species. A new synonymy is proposed: *Thumaglossa dembyckyi* Háva, 2002 (= *Thaumaglossa bellissima* Háva, 2005 syn. nov.). A list of all species recorded from the Philippines is proposed.

Key words: Coleoptera, Dermestidae, taxonomy, new species, faunistics, the Philippines.

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INTRODUCTION

The family Dermestidae currently consists of 62 genera, containing ca. 1600 species worldwide (Háva 2015); 29 species are known from the Philippines (Mroczkowski 1968, Caliboso et al. 1986, Háva 2005, 2012, 2015a,b, 2016, Háva et al. 2016).

In the present article, results of studying material recently collected on the Philippines, isles Mindanao and Luzon are presented. Two new species are described and a new synonym is proposed.

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.

Deposition of type material: JHAC - Jiří Háva, Private Entomological Laboratory & Collection, Únětice u Prahy, Prague-West, Czech Republic. The nomenclature and zoogeography follow Háva (2015a).

The all colour photographs taken by a Nikon Coolpix 990 digital camera through an MBS-10 binocular stereo microscope.

RESULTS

Subfamily Attageninae

***Attagenus* (*Attagenus*) *fasciatus* (Thunberg, 1795)**

Material examined: Philippines, Mindanao, Wao, Lanao del Sur, Apr.2016, native collector, 1 ♀, J. Háva det., (JHAC).

***Attagenus* (*Aethriostoma*) *undulatus* (Motschulsky, 1858)**

Material examined: Philippines, Mindanao, Wao, Lanao del Sur, Apr.2016, native collector, 2 ex., J. Háva det., (JHAC); Philippines Mindanao, Gutalac, Zamboanga del Norte, Apr.2016, native collector, 1 ex., J. Háva det., (JHAC).

***Attagenus* (*Aethriostoma*) *philippinensis* sp. nov.** (Fig. 1-3)

Type material. Holotype (♀): Philippines, Mindanao, Esperanza, Agusan del Sur, Apr.2016, native collector, (JHAC).

Description. Male. Body measurements (mm): TL 3.2, EW 2,0; oval (Figs. 1-2), convex; dorsally and ventrally unicolorous black, shiny; dorsum covered with short and recumbent, black and golden setation; thoracic underside with comparatively short and recumbent, golden setation; visible abdominal ventrites with recumbent, black setation, sparser than that on thoracic surface. Head finely punctate, covered by golden setation. Palpi brown. Frontal median ocellus present. Antennae brown with short, yellow setation, composed of 11 antennomeres, antennal club compact, black with 3 antennomeres (Fig. 2). Pronotum finely punctate on the disc, coarsely punctate on lateral margins, covered by golden setation. Hypomeron very shiny, without punctures. Scutellum small and triangular, shiny, with rounded apex, without setation. Elytra unicolorous, black, without patterns or fasciae, coarsely punctate on humeri and with one small humeral bump, other parts finely punctate, covered by black, short setation. Epipleuron black, very short, with short black setae. Prosternum without "collar", mouthparts free. Prosternal process short and narrow. Meta- and mesosternum finely punctate discally, laterally coarsely punctate, with golden,

Fig. 1-3. *Attagenus* (*Aethriostoma*) *philippinensis* sp. nov.: 1- habitus, dorsal aspect; 2- head and pronotum; 3- antennae of female.

recumbent setation. Abdomen black, with five visible abdominal ventrites, each ventrite laterally with small depressions, covered by recumbent, black setation. Legs brown, covered with comparatively short and thick, yellow setation. Legs with small, brown thorns along shaft. Tarsi moderately long.

Male. Unknown.

Differential diagnosis. The new species belongs to the subgenus *Aethriostoma* Motschulsky, 1858, the subgenus contains 6 species, the new species differs from all the known species by the unicolorously, yellowish-golden setation on head and pronotum and unicolorous black cuticle and black setation on elytra. Within a group of similar oriental species, it belongs to the nominotypical subgenus including *Attagenus grisescens* Pic, 1937 and *Attagenus arcuatefasciatus* Pic, 1951 differs by above mentioned characters and structure of antennae.

Etymology. Toponymic, after the country of the type locality, the Philippines.

Subfamily Megatominae
Tribe Megatomini

Thaumaglossa dembickyi Háva, 2002
(Figs. 4-5)

Thaumaglossa bellissima Háva, 2005: 85 **syn. nov.**

Material examined ♂♂: Philippines, North Luzon, Pagudpud, Ilocos Norte, Apr.2016, native collector, 2 ♂, J. Háva det., (JHAC); Philippines, Eastern Luzon, Sierra Madre, Quirino, January 2016, native collector, 1 ♂, J. Háva det., (JHAC); Philippines, Mindanao, Kabanglasan, Bukidnon, March 2016, native collector, 1 ♂, J. Háva det., (JHAC); Philippines, Mindanao, Esperanza, Agusan del Sur, Apr.2016, native collector, 1 ♂, J. Háva det., (JHAC); Philippines, Eastern Luzon, Sierra Madre, Tanay Rizal, May 2016, native collector, 1 ♂, J. Háva det., (JHAC).

Published material ♀♀ as *T. bellissima* (Háva et al. 2015): Philippines, Eastern Luzon, Sierra Madre, Quirino, January 2016, native collector, 1 ♀, J. Háva det., (JHAC); Philippines, Eastern Luzon, Sierra Madre, Tapsoy, Nagtipunan, Quirino, April 2016, native collector, 1 ♀, J. Háva det., (JHAC); Philippines, Mindanao, Masara, Compostela Valley, April 2016, native collector, 1 ♀, J. Háva det., (JHAC).

Remarks. Háva (2002 and 2005) described the species (male and female specimens) as two different taxa but according to the present study of recently collected material from Luzon and Mindanao, *T. bellissima* and *T. dembyckyi* are conspecific. Females differ from ~~the~~ males in size and colour of elytral spots, apical spots being absent in females, as shown in Figs. 4-5. *Thaumaglossa bellissima* Háva, 2005 syn. nov. is a junior synonym of*Thumaglossa dembyckyi* Háva, 2002. The species is the first known taxon belonging to the genus *Thaumaglossa* and exerting the sexual dimorphism.

Distribution. A species known from the Philippines: Luzon, Mindanao and Singapore.

***Thaumaglossa laeta* Arrow, 1915b**

Material examined: Philippines, Mindanao, Sibagat, Agusan del Norte, April 2016, native collector, 1 ♀, J. Háva det., (JHAC).

***Thaumaglossa rufocapillata* Redtenbacher, 1867**

Material examined: Philippines, Eastern Luzon, Sierra Madre, Disimongal, Madela, Quirino, Apr.2016, native collector, 1 ♀, J. Háva det., (JHAC).

***Trogoderma serraticorne* (Fabricius, 1792)**

= *Trogoderma anthrenoides* (Sharp, 1902)

Material examined: Philippines, North Luzon, Barig, Mt. Province, June 2016, native collector, 1 ♀, J. Háva det., (JHAC).

4

5

Fig. 4-5. *Thaumaglossa dembickyi* Háva, 2002: 4- habitus of male; 5- habitus of female (as *T. bellissima*).

Tribe Anthrenini

***Anthrenus* (*Nathrenus*) *hrdlickai* sp. nov.**
(Figs. 6-10)

Type material. Holotype (♂): Philippines, South Luzon, Baco, Mindoro Oriental, Apr.2016, native collector, (JHAC). Paratype (1 ♀): same data as holotype, (JHAC).

Description. Male. Body measurements (mm): TL 3.3 EW 2.1; body black, small, oval (Fig. 6). Dorsal surfaces covered by intermixed black and white setiform scales. Head covered only by white scales. Pronotum covered by white and black scales, black scales forming discally patches (Fig. 6). Elytra with black and white scales; white scales forming small spots on each elytron (Fig. 6). Epipleuron with white scales. Individual scales narrowly setiform. Antennae composed of 11 antennomeres, dark brown, antennal club consists of 3 antennomeres, compact (Fig. 7). Antennal fossa very long and narrow. Frons with median ocellus. Eyes with entire median margin. Ventral surface covered with white scales. Sternites II-V with small, black spots in anterolateral areas, other parts covered by white scales (Fig. 8). Prosternum only with white scales. Metasternum only with white scales, without a large patch at lateral margins. 9th sternite as in fig. 10. Legs brown, long, narrow, with white scales and white setae. Aedeagus as in fig. 9.

Female. Body measurements (mm): TL 3.5 EW 2.3. Externally similar to male, but antennomeres in antennal club is shorter.

Differential diagnosis. The new species belongs to the subgenus *Nathrenus* Casey, 1900; from another species occurring in the Philippines, it differs by the following characters: *Anthrenus* (*Nathrenus*) *hrdlickai* **sp. nov.**: elytra covered by black and white scales, white scales forming spots (Fig. 7), antennomere X very long and narrow; *Anthrenus* (*Nathrenus*) *mindanaoensis* Háva, 2004: elytra covered by intermixed brown and yellow scales, antennomere X short and broad.
Etymology. Patronymic, dedicated to my friend Jan Hrdlička (Prague, Czech Republic), a specialist in the family Carabidae: Brachininae (Coleoptera).

RECORDED SPECIES FROM THE PHILIPPINES

[i] = introduced species.

[s] = synathropic species.

Subfamily Dermestinae
Tribe Dermestini
[i]*Dermestes* (*Dermestes*) *ater* DeGeer, 1774
(= *Dermestes cadaverinus* Fabricius, 1775)
(= *Dermestes domesticus* Germar, 1824)
[i]*Dermestes* (*Dermestinus*) *maculatus* DeGeer, 1774
(= *Dermestes vulpinus* Fabricius, 1781)
Subfamily Trinodinae
Tribe Trinodini

Evorinea iota (Arrow, 1915)
Evorinea luzonica Háva, 2016
Trinodes rufithorax Pic, 1926

Subfamily Attageninae
Tribe Attegenini
Attagenus (*Aethriostoma*) *philippinensis* **sp. nov.**
Attagenus (*Aethriostoma*) *undulatus* (Motschulsky, 1858)
[i] [s]*Attagenus* (*Attagenus*) *fasciatus* (Thunberg, 1795)

Subfamily Megatominae
Tribe Anthrenini

[i] [s]*Anthrenus* (*Anthrenus*) *flavipes flavipes* LeConte, 1854
(= *Anthrenus vorax* Waterhouse, 1883)
Anthrenus (*Nathrenus*) *hrdlickai* **sp. nov.**
Anthrenus (*Nathrenus*) *mindanaoensis* Háva, 2004

Tribe Megatomini
Subtribe Adelaidiina

Adelaidia unicolor Mroczkowski, 1966

Subtribe Cryptorhopalina

Orphinus (*Orphinus*) *abrae* Háva, 2015

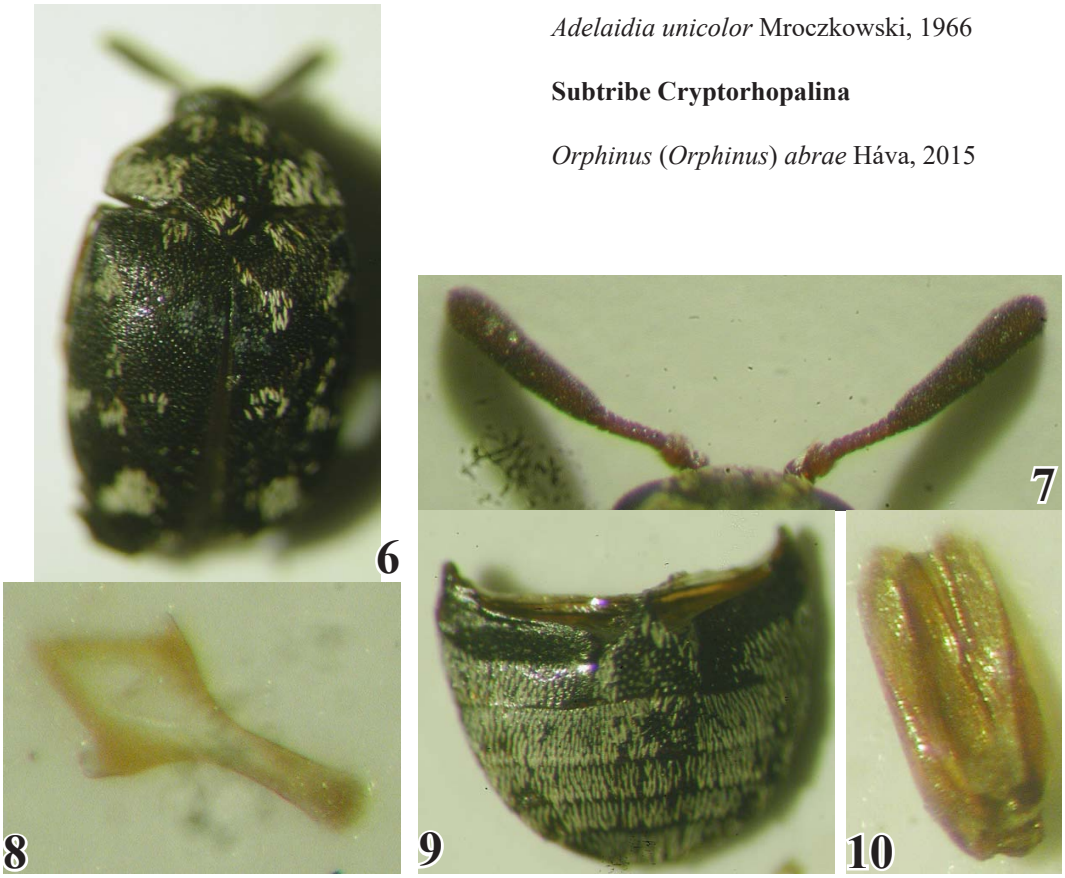

Fig. 6-10. *Anthrenus* (*Nathrenus*) *hrdlickai* sp. nov.: 6- habitus, dorsal aspect; 7- antennae of male; 8- abdomen; 9- male genitalia; 10- 9th abdominal ventrite.

Orphinus (*Orphinus*) *apicalis* Pic, 1918
Orphinus (*Orphinus*) *dembickyi* Háva, 2015
Orphinus (*Orphinus*) *fasciatus* (Matsumura & Yokoyama, 1928
Orphinus (*Orphinus*) *infasciatus* Pic, 1926
Orphinus (*Orphinus*) *lubosi* Háva, 2015
Orphinus (*Orphinus*) *luzonicus Háva, 2012*
Orphinus (*Orphinus*) *parainfasciatus* Háva, 2015
Orphinus (*Orphinus*) *subfasciatus* Pic, 1927
Orphinus (*Orphinus*) *terminalis* (Sharp in Blackburn & Sharp, 1885)
Thaumaglossa dembickyi Háva, 2002
(= *Thaumaglossa bellissima* Háva, 2005 **syn. nov.**)
Thaumaglossa hilleri Reitter, 1881
Thaumaglossa laeta Arrow, 1915
Thaumaglossa peacockae Háva, 2005
Thaumaglossa rufocapillata Redtenbacher, 1867
Thaumaglossa rufula Pic, 1931

Subtribe Trogodermina

[is]*Trogoderma granarium* Everts, 1898
[is]*Trogoderma serraticorne* (Fabricius, 1792)
(= *Trogoderma anthrenoides* (Sharp, 1902))

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