

## A contribution to knowledge of the genus *Orphinus* Motschulsky, 1858 from the Philippines (Coleoptera: Dermestidae: Megatominae)

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### Taxonomy, new species, Coleoptera, Dermestidae, Megatominae, *Orphinus*, the Philippines

**Abstract.** The species *Orphinus* (*Orphinus*) *lubosi* sp. nov., *Orphinus* (*Orphinus*) *abrae* sp. nov., *Orphinus* (*Orphinus*) *dembickyi* sp. nov., and *Orphinus* (*Orphinus*) *parainfasciatus* sp. nov., all from the Philippines, are described, illustrated and compared with similar species.

### INTRODUCTION

The genus *Orphinus* Motschulsky, 1858 currently contains 93 species worldwide, seven species being known from the Philippines (Háva 2012, 2015). In the present article, material of *Orphinus* species collected by the Czech entomologist Luboš Dembický in the Philippines, Luzon Island in 2000, is summarized. Four new species are described below.

### MATERIAL AND METHODS

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.

Abbreviations:

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

MNHN Muséum National d'histoire Naturelle, Paris, France.

Specimens of the presently described species are provided with red, printed labels with the text as follows: „HOLOTYPE [or PARATYPE, respectively] name of taxon sp. nov. Jiří Háva det. 2015”.

The morphological studies were conducted using the MBS-10 stereoscopic microscope.

### RESULTS

#### Subfamily Megatominae Tribe Megatomini

#### Genus *Orphinus* Motschulsky, 1858

#### *Orphinus* (*Orphinus*) *fulvipes* (Guérin-Méneville, 1838)

*Globicornis fulvipes* Guérin-Méneville, 1838: 138.

**Material examined:** Philippines, N Luzon, Zambales prov., Zambales Mts., High Peak-W side, 850±500 m 15°26.28'N 120°03.06'E, 18.iii.2000, L. Dembický leg., 1 spec., J. Háva det., (JHAC).

**Distribution.** A cosmopolitan species (Háva 2015), new data from Luzon.

### ***Orphinus (Orphinus) luzonicus* Háva, 2012**

*Orphinus luzonicus* Háva, 2012: 124.

**Type material.** Holotype (♂): Philippines, Luzon, Ilocos, Norte prov., Lake Paooay N.P., 26.ii.2000, O. Šafránek lgt., (JHAC). Paratypes (7 ♂♂, 6 ♀♀): the same data as holotype (JHAC).

**Distribution.** A recently described species from the Philippines: Luzon (Háva 2012).

### ***Orphinus (Orphinus) subfasciatus* Pic, 1927**

*Orphinus subfasciatus* Pic, 1927: 6.

**Type material:** Holotype (♂) labelled: „Momungan Mindanao“ [small printed label] / “Type” [small handwritten label] / “TYPE” [printed red label] / “subfasciatus n sp” [handwritten label] / *Orphinus subfasciatus* Pic, Jiří Háva det. 2014, (MNHN).

**Distribution.** A species known from the Philippines: Mindanao (Háva 2015).

### ***Orphinus (Orphinus) infasciatus* Pic, 1926**

(Fig. 1)

*Orphinus infasciatus* Pic, 1926: 5.

**Type material.** Holotype (♂) labelled: „Imugan Luzon“ [small printed label] / “Type” [small handwritten label] / “TYPE” [printed red label] / “infasciatus n sp” [handwritten label] / *Orphinus infasciatus* Pic, Jiří Háva det. 2014, (MNHN).

**Material examined:** Philippines, SW Panay 8 km E of Bontol, 200 m, 10-11.Dec.1990, Bolm lgt., 1 spec., J. Háva det., (JHAC).

**Distribution.** A species known from the Philippines: Luzon (Háva 2015).

### ***Orphinus (Orphinus) parainfasciatus* sp. nov.**

(Figs. 2-4)

**Type material.** Holotype (♂): Philippines, N Luzon, 900 m, Abra prov., Cordillera Centr. Mts., Mt. Pultoe SE of Licuan, 17°34'N 120°55'E, 29.iii.2000, L. Dembický leg., (JHAC). Paratypes (80 spec.): same data as holotype, (JHAC).

**Description.** Male. Body small, shiny, narrow and oval, TL 1.9 mm, EW 1.1 mm. Head and pronotum black, each elytron black with posterior 1/3 light brown, black on venter. Head coarsely punctate with long, recumbent, yellow setation. Palpi brown; setation on mentum denser. Eyes small, with brown microsetae. Ocellus on front present. Antennae brown with yellow setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment large, circular (Fig. 3). Pronotum black, disc punctate as head, densely foveolate posteriorly, with long, recumbent, yellow setae. Scutellum triangular, without setation. Elytra finely punctate; humerus

with a small bump; elytral surface with long, recumbent yellow setation; cuticle black with posterior 1/3 light brown (Fig. 1). Epipleuron black, anteriorly broad, finely punctate, with short, yellow setation. Legs brown with yellow setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by long, recumbent, yellow setation. Abdominal visible ventrites brown, with long, recumbent, yellow setation. Male genitalia (Fig. 4)

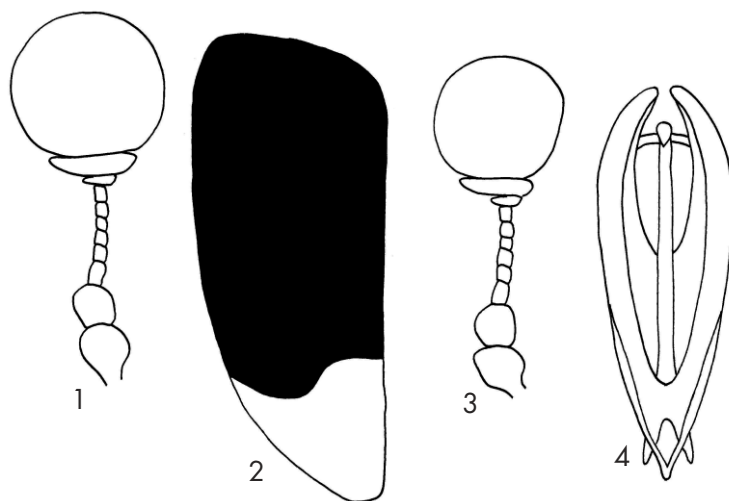
Female. Externally similar to the male, but differs from it by its structure of the antennal club; the terminal antennomere is small.

**Variability.** Body measurements: TL 1.5-2.0 mm, EW 1.0-1.4 mm.

**Differential diagnosis.** The new species is similar to *Orphinus (Orphinus) infasciatus* Pic, 1926 (Fig. 1), but differs from it by its narrower body form, small terminal antennomere (Fig. 3) and structure of male genitalia, from other known Philippine species, it differs by the characters mentioned in the key below.

**Etymology.** The name of the new species is related to its similarity to *Orphinus infasciatus* Pic, 1926.

**Distribution.** The Philippines (North of Luzon Island).



Figs. 1-4. *Orphinus (Orphinus) infasciatus* Pic, 1926: 1- antenna of male; *Orphinus (Orphinus) parainfasciatus* sp. nov.: 2-elytron, 3- antenna of male, 4- male genitalia.

***Orphinus (Orphinus) lubosi* sp. nov.**  
(Figs. 5-6)

**Type material.** Holotype (♂): Philippines, N Luzon, 900 m, Abra prov., Cordillera Centr. Mts., Mt. Pultoe SE of Licuan, 17°34'N 120°55'E, 29.iii.2000, L. Dembický leg., (JHAC). Paratypes (12 spec.): same data as holotype, (JHAC).

**Description.** Male. Body black, shiny on dorsal and ventral surfaces; small and oval, covered by unicolorous brown setation TL 1.9 mm, EW 1.2 mm. Head finely punctate with short, recumbent, brown setation. Palpi brown; setation on mentum denser. Eyes very large, with brown microsetae. Ocellus on front present. Antennae brown with black setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment large, circular (Fig. 5). Pronotum black, disc punctate as head, densely foveolate posteriorly, with short, recumbent, brown setation. Scutellum triangular, without setation. Elytra black, finely punctate; humerus with a small bump; elytral surface with short, recumbent brown setation. Epipleuron black, anteriorly broad, finely punctate, with short, brown-yellow setation. Legs brown with yellow setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by short, recumbent, yellow setation. Abdominal visible ventrites black, with short, recumbent, yellow setation. Male genitalia as in Fig. 6, parameres very coarsely punctate.

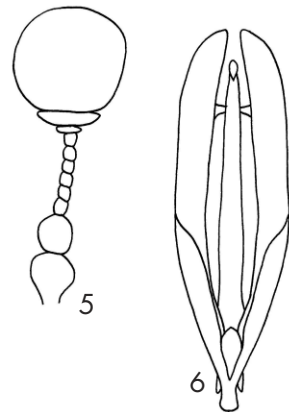
Female. Externally similar to the male, but differs from it by its structure of the antennal club; the terminal antennomere is small.

**Variability.** Body measurements: TL 1.9-2.6 mm, EW 1.2-1.7 mm.

**Differential diagnosis.** The new species is similar to *Orphinus (Orphinus) fulvipes* (Guérin-Méneville, 1838) but differs from it by its unicolorous black cuticle and the structure of the antennae and male genitalia; from the species *O. (Orphinus) aethiops* Arrow, 1915, it differs by a more shining body and by its structure of antennae and male genitalia, from other known Philippine species, it differs by characters mentioned in the key below.

**Etymology.** Patronymic, dedicated to its collector, my friend, Luboš Dembický (Brno, Czech Republic), after his first name.

**Distribution.** The Philippines (North of Luzon Island).



Figs. 5-6. *Orphinus (Orphinus) lubosi* sp. nov.: 5- antennae of male, 6- male genitalia.

***Orphinus (Orphinus) abrae* sp. nov.**  
(Figs. 7-9)

**Type material.** Holotype (♂): Philippines, N Luzon, 900 m, Abra prov., Cordillera Centr. Mts., Mt. Pultoe SE of Licuan, 17°34'N120°55'E, 29.iii,2000, L. Dembický leg., (JHAC). Paratypes (2 spec.): the same data as holotype, (JHAC).

**Description.** Male. Body black on dorsal and ventral surfaces; large and oval, TL 3.2 mm, EW 2.0 mm. Head coarsely punctate, with short, recumbent, brown setation. Palpi brown; setation on mentum denser. Eyes very large, with brown microsetae. Ocellus on front present. Antennae brown with brown setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment large, circular (Fig. 8). Pronotum black, disc punctate as head, densely foveolate posteriorly, with long, recumbent, brown setation. Scutellum triangular, without setation. Elytra black, finely punctate discally; humerus with one small bump; elytral surface with long, recumbent brown and yellow setation; yellow setation forming a narrow, transverse fascia in anterior half (Fig. 7). Epipleuron black, anteriorly broad, finely punctate, with long, yellow setation. Legs brown with yellow setation. Mesosternum finely punctate, covered by long, recumbent, yellow setation. Abdominal visible ventrites black, coarsely punctate, with short, recumbent, yellow setation. Male genitalia as in Figs. 9a-b.

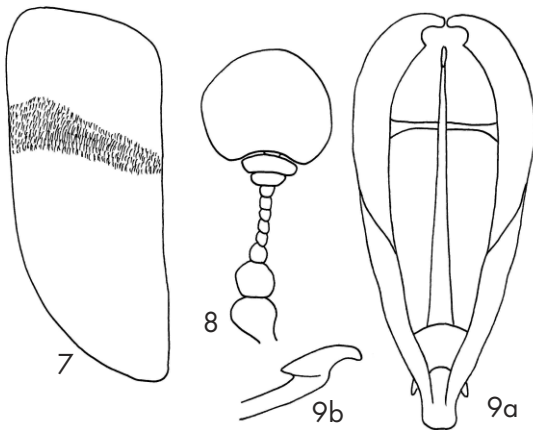
Female. Externally similar to male, but differs from it by its structure of the antennal club; the terminal antennomere is small.

**Variability.** Body measurements: TL 2.8-3.0 mm, EW 1.7-1.9 mm.

**Differential diagnosis.** The new species is characteristic by its elytral fasciae; from all the known species, it differs by the characters mentioned in the key below.

**Etymology.** Named according to the area of its finding.

**Distribution.** The Philippines (North of Luzon Island).



Figs. 7-9. *Orphinus (Orphinus) abrae* sp. nov.: 7-elytron, 8-antenna of male, 9-male genitalia: a- dorsal view, b- tip of median lobe.

***Orphinus (Orphinus) dembickyi* sp. nov.**  
(Figs. 10-12)

**Type material.** Holotype (♂): Philippines, N Luzon, Kalinga-AP / Abra prov., 1600 m, Pass at 17°30'N 121°00'E, 28.iii.2000, L. Dembický leg., (JHAC). Paratypes (13 spec.): same data as holotype, (JHAC).

**Description.** Male. Body black and light brown on dorsum, black on venter; small and oval, TL 2.5 mm, EW 1.5 mm. Head finely punctate with long, recumbent, white setation. Palpi brown; setation on mentum denser. Eyes very large, with white setae. Ocellus on front present. Antennae brown with yellow setae, with 11 antennomeres, antennal club with 2 antennomeres, terminal antennal segment large, circular (Fig. 11). Pronotum black, disc punctate as head, densely foveolate posteriorly, with long, recumbent, white setation. Scutellum triangular, without setation. Elytra finely punctate; humerus with a small bump; each elytron light brown with one postero-medial black spot and black transverse fasciae from humeral bump to scutellum, covered by white, long, recumbent setation (Fig. 10). Epipleuron brown, anteriorly broad, finely punctate, with short, white setation. Legs brown with white setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by short, recumbent, white setation. Abdominal visible ventrites brownish-black, finely punctate, with short, recumbent, white setation. Male genitalia as in (Fig. 12 a-b).

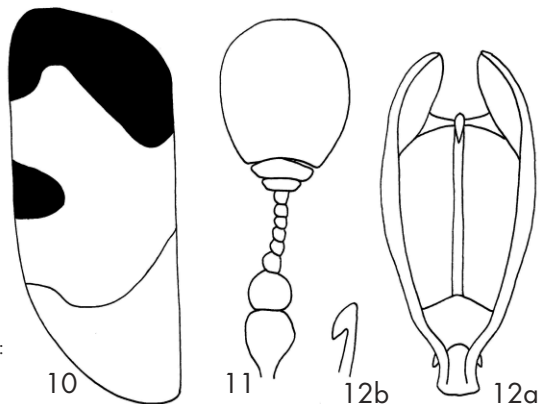
Female. Externally similar to male, but different by its structure of the antennal club; the terminal antennomere is small.

**Variability.** Body measurements: TL 2.1-2.5 mm, EW 1.3-1.6 mm.

**Differential diagnosis.** The new species is characteristic by the elytral fasciae colour; from all the known species it differs by the characters mentioned in the key below.

**Etymology.** Patronymic, dedicated to its collector, my friend, Luboš Dembický (Brno, Czech Republic).

**Distribution.** The Philippines (North of Luzon Island).



Figs. 10-12. *Orphinus (Orphinus) dembickyi* sp. nov.: 10-elytron, 11-antenna of male, 12-male genitalia: a- dorsal view, b- tip of median lobe.

KEY OF *ORPHINUS* (S. STR.) SPECIES KNOWN FROM THE PHILIPPINES

- 1(10) cuticle unicolorous without reddish or orange fasciae or spots  
 2(7) elytra with bicolorous setation  
 3(6) each elytron covered by brown setation with transverse fasciae of white or grey setation  
 4(5) each elytron with three broad transverse fasciae and apical spot of grey setation, other part covered by brown setation.....*Orphinus subfasciatus* Pic, 1927  
 5(4) each elytron with one narrow, transverse fasciae of golden-yellow setation in anterior half, other part covered by brown setation.....*Orphinus abrae* sp. nov.  
 6(3) each elytron covered by grey setation with two circular spots of brown setation.....*Orphinus luzonicus* Háva, 2012  
 7(2) elytra with unicolorous setation  
 8(9) body unicolorous black, elytra coarsely punctate .....*Orphinus lubosi* sp. nov.  
 9(8) body unicolorous brown, elytra finely punctate ..... *Orphinus fulvipes* (Guérin-Ménéville, 1838)  
 10(11) cuticle bicolorous, black or brown with reddish, black or light brown fasciae or spots  
 11(14) each elytron black with posterior 1/3 light brown  
 12(13) body broad, oval; terminal antennomere large, dark brown ..... *Orphinus infasciatus* Pic, 1926  
 13(12) body narrow, oval; terminal antennomere small, light brown ..... *Orphinus parainfasciatus* sp. nov.  
 14(11) each elytron black or brown with fasciae and spot  
 15(16) elytron light brown with one postero-medial black spot and black transverse fasciae from humeral bump to scutellum ..... *Orphinus dembickyi* sp. nov.  
 16(15) elytron black or brown with reddish transverse fasciae and apical spot  
 17(20) elytra black; terminal antennomere small  
 18(19) reddish transverse fasciae and apical spot covered by white setation .....*Orphinus apicalis* Pic, 1918  
 19(18) reddish transverse fasciae, small spot near scutellum and apical spot covered by yellow setation .....  
 ..... *Orphinus fasciatus* (Matsumura & Yokoyama, 1928)  
 20(17) elytra brown with one narrow, light brown, transverse fasciae and apical spot covered by white setation; terminal antennomere large ..... *Orphinus terminalis* (Sharp in Blackburn & Sharp, 1885)

LIST OF THE *ORPHINUS* SPECIES KNOWN FROM THE PHILIPPINES

Genus *Orphinus* Motschulsky, 1858

Subgenus *Orphinus* s. str.

*Orphinus abrae* sp. nov.

Distribution: the Philippines (Luzon).

*Orphinus apicalis* Pic, 1918

= *Orphinus rufofasciatus* Pic, 1924

Distribution: Indonesia: Java; Sumatra; the Philippines (Luzon).

*Orphinus dembickyi* sp. nov.

Distribution: Philippines: Luzon.

*Orphinus fasciatus* (Matsumura & Yokoyama, 1928)

Distribution: Japan; the Philippines (Luzon); Taiwan; Papua New Guinea.

*Orphinus fulvipes* (Guérin-Ménéville, 1838)

Distribution: a cosmopolitan species.

*Orphinus infasciatus* Pic, 1926

Distribution: the Philippines (Luzon).

*Orphinus lubosi* sp. nov.

Distribution: the Philippines (Luzon).

*Orphinus luzonicus* Háva, 2012

Distribution: the Philippines (Luzon).

*Orphinus parainfasciatus* sp. nov.

Distribution: the Philippines (Luzon).

*Orphinus subfasciatus* Pic, 1927

Distribution: the Philippines (Mindanao).

*Orphinus terminalis* (Sharp in Blackburn & Sharp, 1885)

Distribution: Hawaiian Is.; the Philippines; Cook Is.; Gilbert Is.; South of Mariana Is.; Marshall Is.; Samoa Is., Upolu Is.

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