

Study of the genus *Orphinus* Motschulsky, 1858. Part 7 - descriptions of three new species with new faunistic records (Coleoptera: Dermestidae: Megatominae)

Jiří HÁVA

Private Entomological Laboratory & Collection, Rýznerova 37/37, Únětice u Prahy, Prague-west, Czech Republic *Corresponding Author*: jh.dermestidae@volny.cz

Abstract

Three new species from the Philippines and Thailand: *Orphinus (Orphinus) sanluis* sp. nov. from Mindanao Island, Philippines, *Orphinus (O.) pasil* sp. nov. from Luzon Island, Philippines, and *Orphinus (O.) kokut* sp. nov. from Thailand are described, illustrated and compared with similar species. The female of *Orphinus (O.) limaensis* Háva, 2022 is described. New locality data are provided for *Orphinus (O.) opulentus* Háva, 2022, *Orphinus (O.) reverentinus* Háva, 2022; and *Orphinus (O.) rihai* Háva, 2015.

Keywords: Taxonomy, new species, new records, Coleoptera, Dermestidae, Megatominae, Orphinus, Oriental Region.

Introduction

The dermestid genus *Orphinus* Motschulsky, 1858 currently contains two subgenera, Curtophinus Pic, 1954 and Orphinus s. str., with 201 species distributed worldwide (Háva 2020, 2021a, 2021b, 2022a, 2022b, 2023). This paper is the seventh contribution to the study of the genus *Orphinus*, which includes descriptions of three new species from the Philippines and Thailand. It also provides new faunistic data for three other species collected in Thailand and Indonesia.

Materials 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:

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

Mentioned materials are deposited in the following collections:



AHEC private collection of Andreas Herrmann, Stade, Germany;
JHAC Private Entomological Laboratory & Collection, Jiří Háva, Únětice u Prahy, Prague-West, Czech Republic

Specimens of the presently described species are provided with red, printed labels with the text as follows: "HOLOTYPE *name of species* sp. nov. Jiří Háva det. 2024".

Results

Genus Orphinus Motschulsky, 1858 Subgenus Orphinus s. str.

Orphinus (Orphinus) limaensis Háva, 2022

Material examined: Sumatra S, Lampung prov., Bukit Barisan, Selatan NP, 5 km SW Lima, 7-17.2.2000, D. Hauck lgt., 1 ♀, J. Háva det., (JHAC).

Remarks. This species was described based on a male specimen. The female mentioned above is externally similar to the male, but the terminal antennomere is very small and circular.

Orphinus (Orphinus) opulentus Háva, 2022

Material examined: Indonesia, S Sumatra, Jambi, Mauro, 86 m, 3.ii.2006, H. Takizawa lgt., 1 3, J. Háva det., (AHEC).

Remarks. This species was described from Malaysia and Sumatra. The record above is new locality data from Sumatra.

Orphinus (Orphinus) reverentinus Háva, 2022

Material examined: Thailand, Mae Hong Son, Soppong, 1500 m, 12.5.[19]96, Becvar lgt., 1 3, J. Háva det., (AHEC).

Remarks. This species was described from Thailand.

Orphinus (Orphinus) rihai Háva, 2015

Material examined: Thailand, Mae Hong Son, Soppong, 1500 m, 12.5. [19]96, Becvar lgt., 1 3, J. Háva det., (AHEC).



Remarks. This species was described from Thailand. The record above is the second known specimen.

Orphinus (Orphinus) kokut sp. nov.

https://zoobank.org/NomenclaturalActs/15c170b5-45b3-44bc-8ef1-0a0aeb64377b (Figs. 1-3)

Type material. Holotype (\bigcirc): C Thailand, Trat Prov., Ko Kut Isl., 30.10.-10.11.2023, A. Skale lgt., (JHAC).

Description. Male. Body oval, TL 1.7 mm, EW 1.0 mm. Head, pronotum, scutellum brown and elytra dark brown with one transverse light brown fascia and orange apical part, shiny (Fig. 1), brown on venter. Head finely punctate with long, recumbent, white setation. Palpomeres brown; setation on mentum denser. Eyes extremely large, with yellow microsetae. Ocellus present on front. Antennae with 11 antennomeres, antennal club with 2 antennomeres, terminal antennomere large, elongate oval, apex triangular (Fig. 2) covered by black setation. Antennomeres I-II dark brown, III-IX light brown. Pronotum narrow, brown, disc finely punctate, densely foveolate posteriorly, with long, recumbent, white setation. Scutellum dark brown, triangular, without setation. Elytra dark brown with one light brown transverse spot on anterior half not reaching to suture and light brown apical part, finely punctate; humerus with one small bump; elytral surface with long, recumbent white setation. Epipleuron light brown, anteriorly broad, coarsely punctate, with short, white setation. Legs light brown, with white setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by short, recumbent, white setation, Pygidium brown, with white setation, Visible abdominal ventrites I-IV brown, ventrite V light brown, with short, recumbent, white setation. Male genitalia (Fig. 3).

Female. Unknown.

Differential diagnosis. The new species is similar to *Orphinus (O.) schillhammeri* Háva, 2017 (Laos), *O. (O.) kadeji* Herrmann & Háva, 2004 (Laos, Thailand), *O. (O.) coratensis* Háva, 2022 (Thailand), *O. (O.) votrubai* Háva, 2023 (Vietnam), *O. (O.) yeti* Háva, 2008 (Nepal, N India) and *O. (O.) turnai* Háva, 2021 (China), but differs from them by the structure of the antennae and male genitalia and arrangement of elytral spots.

Etymology. Toponymic, named according to the type locality, Ko Kut Island.

Orphinus (Orphinus) sanluis sp. nov.

https://zoobank.org/NomenclaturalActs/682FC9AA-3F80-4915-BEB0-95EF76B9AE40 (Figs. 4-6)

Type material. Holotype (\mathcal{Q}): Philippines, Mindanao, Agusan del Sur, San Luis, March 2020, [local collectors], (JHAC).



Description. Female. Body oval, TL 2.5 mm, EW 1.8 mm. Head, pronotum, scutellum black, elytra black, and castaneous without fasciae or spots, shiny (Figs. 4-5), black on venter. Head coarsely punctate with short, recumbent, yellow setation. Palpomeres dark brown; setation on mentum denser. Eyes large, with yellow microsetae. Ocellus present on front. Antennae light brown, with 11 antennomeres, antennal club with 2



Figures 1-3. *Orphinus (Orphinus) kokut* sp. nov.: 1- habitus, dorsal aspect; 2- antenna of male; 3- male genitalia.

antennomeres, terminal antennomere large circular (Fig. 6) covered by black setation. Pronotum broad, black, disc finely punctate, densely foveolate posteriorly, with short, recumbent, yellow setation. Scutellum black, triangular, without setation. Elytra black with castaneous area, finely punctate; humerus with one small bump; elytral surface with long, recumbent yellow setation. Epipleuron black, anteriorly broad, coarsely punctate, with short, yellow setation. Legs brown, with yellow setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by short, recumbent, yellow setation. Pygidium brown, with brown setation. Visible abdominal ventrites dark brown, with short, recumbent, yellow setation.

Male. Unknown.

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Differential diagnosis. The new species differs from all other known species by the very characteristic castaneous elytral area.

Etymology. Toponymic, named according to the type locality, the municipality of San Luis in Agusan del Sur, Mindanao Island.

Orphinus (Orphinus) pasil sp. nov. https://zoobank.org/NomenclaturalActs/ED332C89-4D04-4417-A511-E9AF653B704F (Figs. 7-10) ZOOBANK: https://zoobank.org/References/1572B1D1-B265-473F-91CE-C4F31597A9FA Received: 12-November-2023 Published: 31-July-2024

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Type material. Holotype (♂): Philippines, North Luzon, Kalinga, Pasil, March 2020, [local collectors], (JHAC).

Paratypes: (5 \bigcirc \bigcirc): same data as holotype, (JHAC).



Figures 4-6. *Orphinus (Orphinus) sanluis* sp. nov.: 4- habitus, dorsal aspect; 5- left elytron with light brown area; 6- antenna of female.

Description. Male. Body oval, TL 2.2 mm, EW 1.7 mm. Head, pronotum, scutellum black, and elytra deeply dark brown with one transverse fascia from yellow setation, shiny (Figs. 7-7a), black on venter. Head finely punctate with short, recumbent, yellow setation. Palpomeres brown; setation on mentum denser. Eyes large, with yellow microsetae. Ocellus present on front. Antennae with 11 antennomeres, antennal club with 2 antennomeres, terminal antennomere large circular (Fig. 8) covered by black setation. Antennomeres I-II dark brown, antennomeres III-XI brown. Pronotum broad, black, disc finely punctate, densely foveolate posteriorly, with short, recumbent, yellow setation. Scutellum black, triangular, without setation. Elytra black to dark brown with one narrow transverse fascia from yellow setation; humerus with one small bump; elytral surface with long, recumbent brown setation. Epipleuron black, anteriorly broad, coarsely punctate, with short, yellow setation. Legs brown, with yellow setation. Mesosternum coarsely punctate laterally, otherwise finely punctate, covered by short, recumbent, yellow setation. Pygidium brown, with brown setation. Visible abdominal ventrites black, with short, recumbent, yellow setation. Male genitalia (Fig. 10).

Female. Externally similar to male, but the terminal antennomere is the smallest (Fig. 9). Body oval, TL 2.7 mm, EW 1.7-1.8 mm.



Differential diagnosis. The new species is externally very similar to *Orphinus (O.) abrae* Háva, 2015 (Philippines: Luzon), but differs from it by the structure of the antennae and male genitalia.

Etymology. Toponymic, named according to the type locality, Pasil in the Province of Kalinga.



Figures 7-10. *Orphinus (Orphinus) pasil* sp. nov.: 7, 7a- habitus, dorsal aspect; 8- male genitalia; 9- antenna of male; 10- antennal club of female

Competing interests

The author declared that there is no competing interests exist in the preparation of the manuscript.



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