

Catalog of the genus *Prostomis* Latrielle 1819 in the Philippines (Coleoptera: Prostomidae) with description of a new species from the Eastern Mindanao Biodiversity Corridor

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A catalog of the genus *Prostomis* in the Philippines is presented, together with a description of a new species, *P. comvalensis* sp. nov., from New Bataan, Davao de Oro. The new species is the fourth species endemic in the Philippines, the third record in greater Mindanao, and the first record in the Eastern Mindanao Biodiversity Corridor (EMBC). A distribution map of the Philippine species is also provided.

Keywords: Catalog, *Prostomis*, Prostomidae, Coleoptera, Philippines

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INTRODUCTION

More than 100 years ago, the first comprehensive catalog of the Philippine Coleoptera fauna was made by Schultze, a German entomologist at the Philippine Bureau of Science. In his catalog, the genus

Prostomis was not mentioned (Schultze, 1916a,b). The genus was first recorded in the Philippines by the German Entomologist Wolfgang Schawaller in 1992, when he described *P. luzonica* based on two specimens collected between 1945 and 1979

(Schawaller, 1992). These species are distributed in two localities on the Island of Luzon.

Then, in 2003, Schawaller described two additional species from the Island of Mindanao, Philippines (Schawaller, 2003). The first species, *P. apoica* was described based on two specimens collected in 1996 from Mindanao, particularly in Mount Apo. The second species, *P. mindanaoica* was described based on one female specimen from Bukidnon. The two previously described species were considered site-endemic in a particular mountain range, as in the case of the new species presented herein. The global distribution and generic description of the genus are already provided by Schawaller (Schawaller, 2003). The distribution map of the Philippine species is shown in Figure 2. In contrast to the other species found in other countries, the Philippine species seemed to be restricted, with very few specimens found in a locality.

During the recent short expedition of the first and third authors, members of the Coleoptera Research team headed by the fourth author at the Eastern Mindanao Biodiversity Corridor, particularly within the province of Davao de Oro, a peculiar species of *Prostomis* was collected opportunistically within the pristine mountain range in the said province and is formally described below. With the addition of *P. comvalensis* sp. nov., the Philippines now has four Species in total, all endemic to the country.

Material and Methods

Morphological characters were observed under Olympus SZ51 stereomicroscope. Images of the habitus were taken using Canon EOS 6D digital camera equipped with an MP-E 65-mm macro lens. Images were stacked and processed using a licensed version of Helicon Focus 6.7.0. High-definition images were then cleaned and

organized into plates using Photoshop CS6 Portable software.

Terminologies follow the works of Schawaller (1993) and Ito & Yoshitomi (2017). Morphological abbreviations used are as follows:

/ different lines

// different labels

BL: total body length (HL+PL+EL);

EL: length of elytra in suture from anterior margin of scutellum to elytral apex;

EW: maximum width of elytra;

HL: head length from front margin of pronotum to front median margin of clypeus;

HW: maximum width of head across eyes;

JLL: length of left jugular process from behind of mentum to apex;

JRL: length of right jugular process from behind of mentum to apex;

MLL: length of left mandible from front median margin of clypeus to apex;

MRL: length of right mandible from front median margin of clypeus to apex;

PL: length of pronotum in median line; **PW**: maximum width of pronotum.

Acronyms used are as follows:

ANIC = Australian National Insect Collection, Canberra, Australia.

MHNG = Muséum d'Histoire Naturelle, Genève, Switzerland.

PNMNH = Philippine National Museum, Manila, Philippines.

SMNS = Staatliches Museum für Naturkunde, Stuttgart, Germany.

TAXONOMY

Prostomis comvalensis Obrial, Kristensen, Agbas, Medina, sp. nov.

(Fig 1)

Holotype, female, Philippines: Mindanao Island / Davao de Oro / New Bataan / 13. X. 2025 / G. Obrial, D. Agbas leg. (type on white card) // HOLOTYPE female /

Prostomis comvalensis sp. nov. (type on red card). Type specimen currently at DORSU entomological collections; will be deposited at PNMNH.

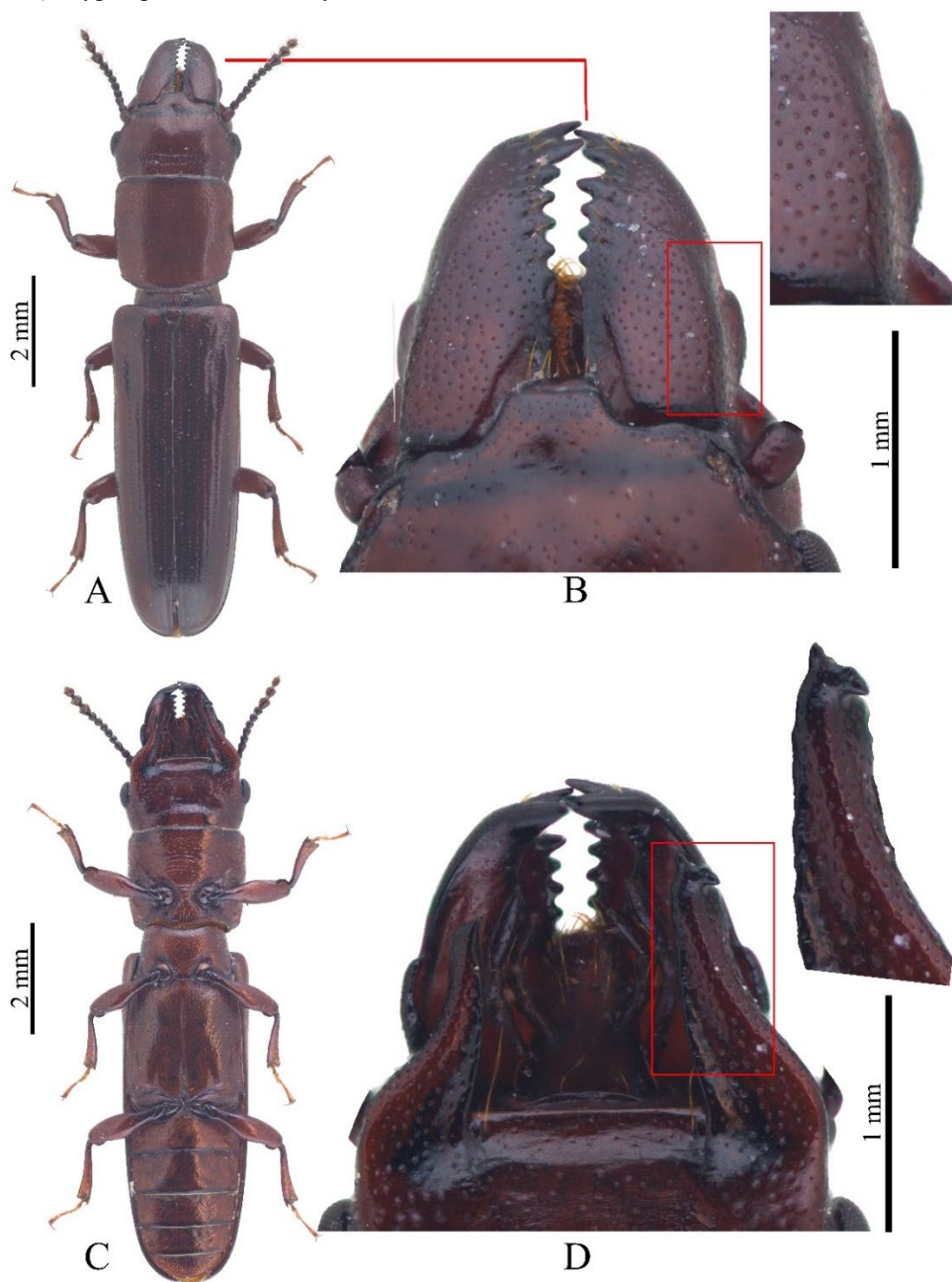


Figure 1. Habitus of *P. comvalensis* Obrial, Kristensen, Agbas, Medina, sp. nov., holotype female: A. Dorsal view, B. Enlarged view of mandibles, C. Ventral view, D. Enlarged view of the jugular process. Scale bar for size reference.

Diagnosis. This new species resembles its Mindanao endemic congeners but can be easily distinguished by having slender mandibles, with a faint hump at the basal third margin of the mandibles (vs. more pronounced in *P. apoica*, slightly raised in *P. mindanaoica*), with a very unique branched at the apex of the right jugular process (vs. not branched *P. apoica*, unbranched and slightly recurved and *P. mindanaoica*, triangular notch in *P. luzonica*). The new species also shares similar characteristics, such as body coloration and the morphology of the pronotum and elytra, with other Southeast Asian species, such as *P. weigeli* Schawaller, 2003, from Indonesia, *P. taiwanensis* Ito & Yoshitomi, 2017, from Taiwan, and *P. parva* Ito & Yoshitomi, 2017, from Laos.

Dimensions: MLL 1.5 mm; MRL 1.4 mm; JLL 1.0 mm; JRL 1.2 mm; HL 1.6 mm; HW 2.4 mm; PL 2.0 mm; PW 2.1 mm; EL 6.0 mm; EW 2.3 mm.

Body (Fig. 1A), BL 9.6 mm, large in size, oblongate, distinctly flat as viewed laterally, glabrous; body surface covered with fine punctures.

Integument. Integument dark reddish brown, with tinge of blackish coloration at elytra and edges of pronotum, mandibles, and coxae.

Head, short, wider than long HW/HL 2.4/1.6 mm; clypeus projecting anteriorly. Basal third of head with distinct short, wide, rectangular depression; two-thirds slightly elevated; apical third gradually declined with faint circular depression at middle with black colored transverse line almost reaching the sides. Eyes moderate in size, distinct. Antennae moniliform, bearing

several long erect brownish setae except for segments I, II, and III; segment I robust, almost three times longer than segment II; segment III slender at base, nearly twice longer than segment IV to VIII; segment IX-XI subrectangular with rounded sides, more setaceous.

Mandibles (Fig. 2B) asymmetrical, slender, with very fine and sparse puncturations arranged randomly. Lateral margins weakly rounded near apex; MLL/MRL 1.5/1.4mm.

Jugular process (Fig. 1D) not equal in length; left jugular process shorter, slenderer, sides tapering towards apex than the right jugular process; apical half of right jugular process more robust than the left jugular process; longer, slightly thicker, apex with highly pointed and branched protrusion; JLL/JRL 1.0/1.2mm.

Prothorax squarish with a weakly and broadly rounded base, truncate at apex, slightly wider than long PL/PW 2.0/2.1 mm, lateral margin emarginate, with very faint medial longitudinal groove.

Elytra. Elytra more than twice longer than wide, EL/EW 6.0/2.3 mm, widest at humeri; elytral striae-punctate, oblongate, truncate at base, rounded at apex 1/4; Scutellum rounded, glabrous.

Etymology. The species name *comvalensis* is named after the Compostela Valley Province, the former name of Davao de Oro, Province where the species was collected.

Distribution: Philippines (Mindanao: Davao de Oro, Municipality of New Bataan, 1450 masl).

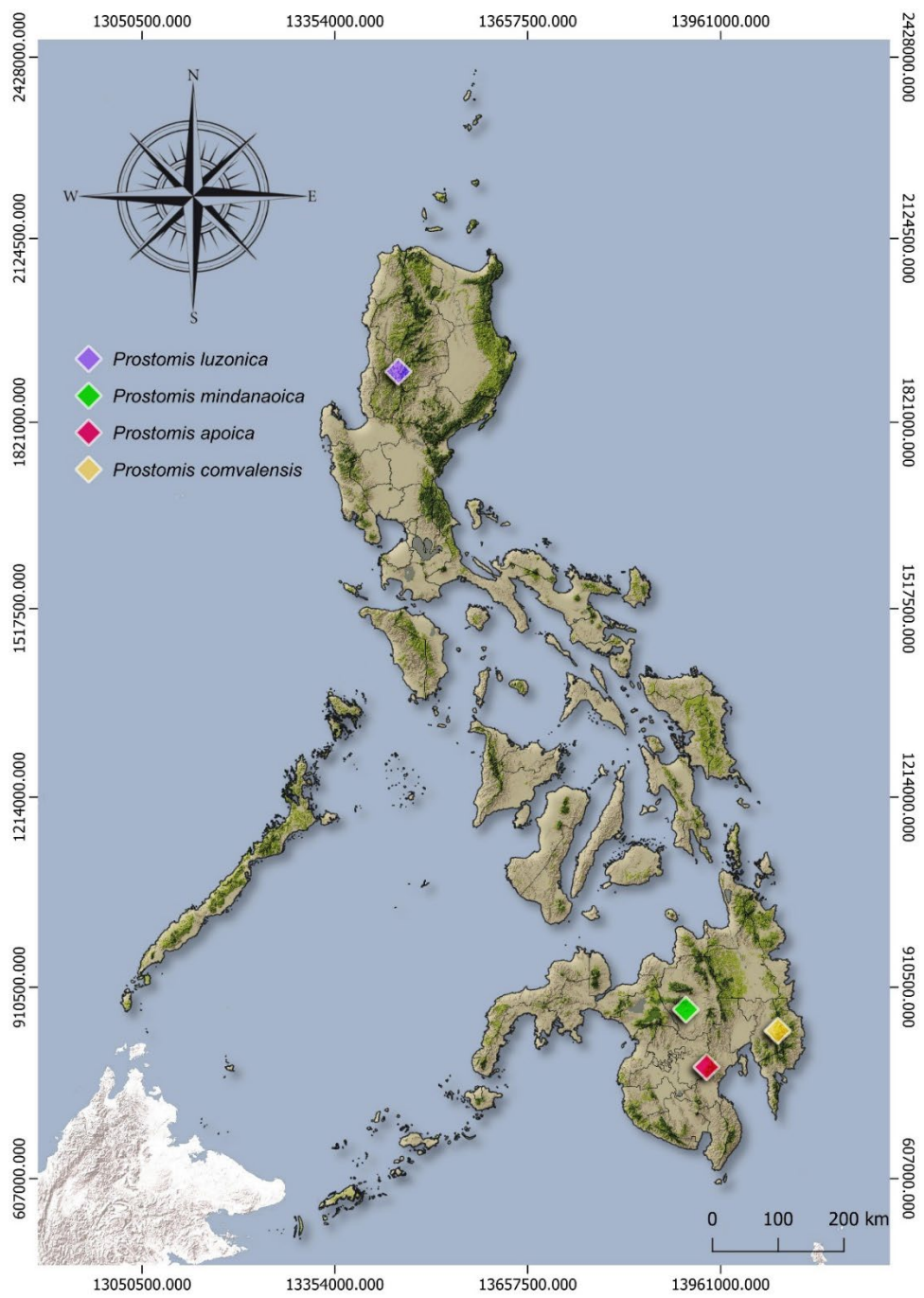


Figure 2. Distribution map of Philippine species of the genus *Prostomis*.

Description. Female.

Notes on species habitat

The new species was caught with bare hands as it flew passing the collectors in its type locality, a habitat that is characterized as a mossy montane ecosystem at an elevation of about 1450masl. During the collection period at 10 AM – 12 PM, the place was noticeably very cold and humid, and was drizzled with droplets of rain along with a bit of fog. Though the forest habitat of the species is considered to be pristine, there are disturbances caused by anthropogenic activities, the most prominent being the ongoing road construction project of the government that had cleared out a long section of the forest to pave way for cemented roads aiming to connect two municipalities separated by the mountain range of Mt. Tagubud (also locally known as White Peak). There are also several felled trees and decaying logs in the area due to locals poaching for timber to be used as firewood and housing materials, while some locals are starting to clear out sections of the forest along the side of the road, developing the land to accommodate vegetable plantations, abaca plantations, and other related farming activities. There is also the threat of unregulated tourism, as the place is gaining popularity with tourists who want to witness the scenic views of the highlands, an accessibility made possible by the cemented road. Sections of the forest near the side of the road owned by private individuals, particularly at the top where the overview of the mountain range is visible, have already been cleared out and flattened in preparation for the construction of an inland resort. These anthropogenic activities threaten not only the species but also its forest habitat, along with all other endemic species that rely heavily on the forest, particularly since the mountain range is not protected by law (Avergonzando & Medina, 2024). There have

been a lot of reported cases in Davao de Oro and along with its neighboring province, the province of Davao Oriental, where the forest areas and the species that rely on them are being threatened by the same anthropogenic activities as recorded in the papers of Cabras et al. (2021a, 2021b, 2021c, 2023, 2025), Medina et al. (2024a, 2024b), Obrial et al. (2024), Agbas et al. (2024), and Pajota et al. (2025).

Catalog

Prostomis Latreille, 1819

Prostomis apoica Schawaller, 2003

Schawaller, 2003: 3.

Distribution: Philippines (Mindanao: Mt. Apo, Ilomavis, 1400 masl)

Type and depository information: Holotype male and paratype male, SMNS.

Prostomis comvalensis sp. nov.

Distribution: Philippines (Mindanao: Davao de Oro, Municipality of New Bataan, 1450 masl).

Type and depository information: Holotype female, currently at MMCP, to be deposited at PNMNH.

Prostomis luzonica Schawaller, 1992

Prostomis luzonica Schawaller, 1992: 259-260; Schawaller, 2003: 10.

Distribution: Philippines (Luzon: Mount Data Lodge, 2200-2300 masl; Mountain Province, 1300-2500 masl).

Type and depository information: Holotype male, MHNG.

Prostomis mindanaoica Schawaller, 2003

Prostomis mindanaoica Schawaller, 2003: 3.

Distribution: Philippines (Northern Mindanao: Bukidnon, Maramag).

Type and depository information: Holotype female, SMNS.

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