

## A new species of the genus *Expachyrhynchus* Yoshitake, 2013 (Coleoptera: Curculionidae: Pachyrhynchini) from Palawan Island, Philippines

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A new species of the genus *Expachyrhynchus* Yoshitake, 2013 (Coleoptera: Curculionidae: Pachyrhynchini) from Palawan Island (Philippines) is described and illustrated: *E. palawanensis* sp. nov. This new species is similar in general appearance to *E. chloromaculatus* Yoshitake, 2013 but differs from it by several morphological characteristics (see differential diagnosis). Diagnosis for the new species is provided, in addition, photographs of the habitus and illustrations of male and female genitalia are included.

Key words: Pachyrhynchini, *Expachyrhynchus*, Palawan, Philippines, new species, taxonomy.

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### INTRODUCTION

Palawan Island is a long, narrow island locating from northern Borneo northeast toward Mindoro Island (Fig. 3). As Palawan may have had a mid – Pleistocene connection to Borneo, the island is a part of the Asian continental shelf (Brown 2013). Tectonically, Palawan is considered to be a north-east extension of the Sunda Plate, in collision with the Philippine Mobile Belt at Mindoro (Brown 2013). Unlike most of the Pachyrhynchini described in the previous years (Rukmane 2018; Cabras & Rukmane 2016; Bollino et al. 2017), Palawan Island is biogeographically part of Sundaland, with a fauna and flora related to that found in Borneo. Pachyrhynchini of the Palawan Island is of special interest as we see from the recent studies, from the numerous new taxa described

from the Philippines, only two species have been newly described from the Palawan Island. In contrast, more than 20 new taxa have been described in recent years only from the Mindanao Island.

As for genus *Pachyrhynchus* Germar, 1824 none of the species has been previously recorded from the Palawan Island (Rukmane 2018), yet, in 2013 Yoshitake described a new genus distributed in Palawan island, that highly resembles the genus *Pachyrhynchus*, but differs by various morphological features of general importance. During the survey of coleopterological material from the Daugavpils University, Study and Research Center “Ilgas” (DUBC), a new interesting taxon was found; the studied specimens could not be identified as any of the species previously known from the region. The new species show high re-

semblance to both *Pachyrhynchus* and *Expachyrhynchus*, but due to careful examination of morphological characters of the new species it is clear, that it belongs to the genus *Expachyrhynchus* Yoshitake, 2013 because, amongst others, the rough puncture of prothorax and elytra, as well as the upper margin antennal scrobe being interrupted by a deep oblique groove. The new species clearly differs from two other species within the genus *Expachyrhynchus* and it is described herein.

## MATERIAL AND METHODS

The following study was based on specimens deposited at the DUBC. The methods and equipment used in this study were the same as explained in Rukmane (2018). The type specimens of the new species described in this paper are preserved in the DUBC.

Label data are cited *verbatim*. In text were used the following symbols and abbreviations:

/ = different lines

// = different labels

## RESULTS

### *Expachyrhynchus palawanensis* sp. nov.

(Fig. 1A, 1B, 2)

**Type material. Holotype:** Male (Fig. 1A): PHILIPPINES / Palawan, Brokes Point, 700m / July 2016 / local collector leg. (typed on white card) // ex. Prof. A. Barševskis coll. (typed on white card) // HOLOTYPE / Male / *Expachyrhynchus palawanensis* Rukmane 2019 / det. Rukmane A. 2019 (typed on red card).

**Paratypes** (2 females): PHILIPPINES, Palawan / Brokes Point / IX 2014, 400-700m / local collector leg. (typed on white card) // ex. Prof. A. Barševskis coll. (typed on white card) // PARATYPE / Female / *Expachyrhynchus palawanensis* Rukmane 2019 / det. Rukmane A. 2019 (typed on red card); PHILIPPINES / Palawan, Brokes Point, 700m / July 2016 / local collector leg. (typed on white

card) // ex. Prof. A. Barševskis coll. (typed on white card) // PARATYPE / Female / *Expachyrhynchus palawanensis* Rukmane 2019 / det. Rukmane A. 2019 (typed on red card). All in DUBC.

**General distribution:** Philippines, Palawan Island (Fig. 3).

**Description of holotype.** Measurements: LB: 9.8; LR: 1.9; WR: 1.6; LP: 3.3; WP: 3.0; LE: 6.3; WE: 4.0. N = 1. Dorsal habitus as shown in Fig. 1A. Integument black. Body surface and underside with weak lustre except moderately shiny head and antennomers.

Body, especially elytra, sparsely covered with short brown hairs and glossy pale green to yellow markings of recumbent round scales that are dispersed on the body surface rather in chaotic order and can be connected to each other in varying degrees.

Head sub-opaque; forehead weakly punctured, nearly two times as wide as eye width; eyes large, strongly prominent from the outline of the head. Antennae with glossy surface, scape relatively slender, shorter than funicle; funicular segment I nearly twice as long as wide, moderately longer than II; segment II 1.5 times / as long as wide, 1.5 times as long as III; segments III – V sub-equal in length and width, slightly longer than wide, slightly shorter than segment VI; segment VI bigger, slightly longer than wide, shorter and smaller than segment VII; segment VII slightly longer than wide; club sub-ellipsoidal, 1.5 times as long as wide, nearly as long as funicular segments V to VII combined; upper margin of antennal scrobe is interrupted by a deep oblique groove. Forehead without scally patches along midline. Antennal scape densely covered with brown hairs. Rostrum longer than wide (LR/WR: 1.19); basal part of the rostrum minutely pubescent; dorsum sub-opaque, finely punctured, with deep triangular concavity on basal part; apical bulge medium, flattish dorsally, with a pair of oblique elliptic depressions on the middle; dorsal contour of forehead and rostrum moderately arched in basal half, generally declined to midline and

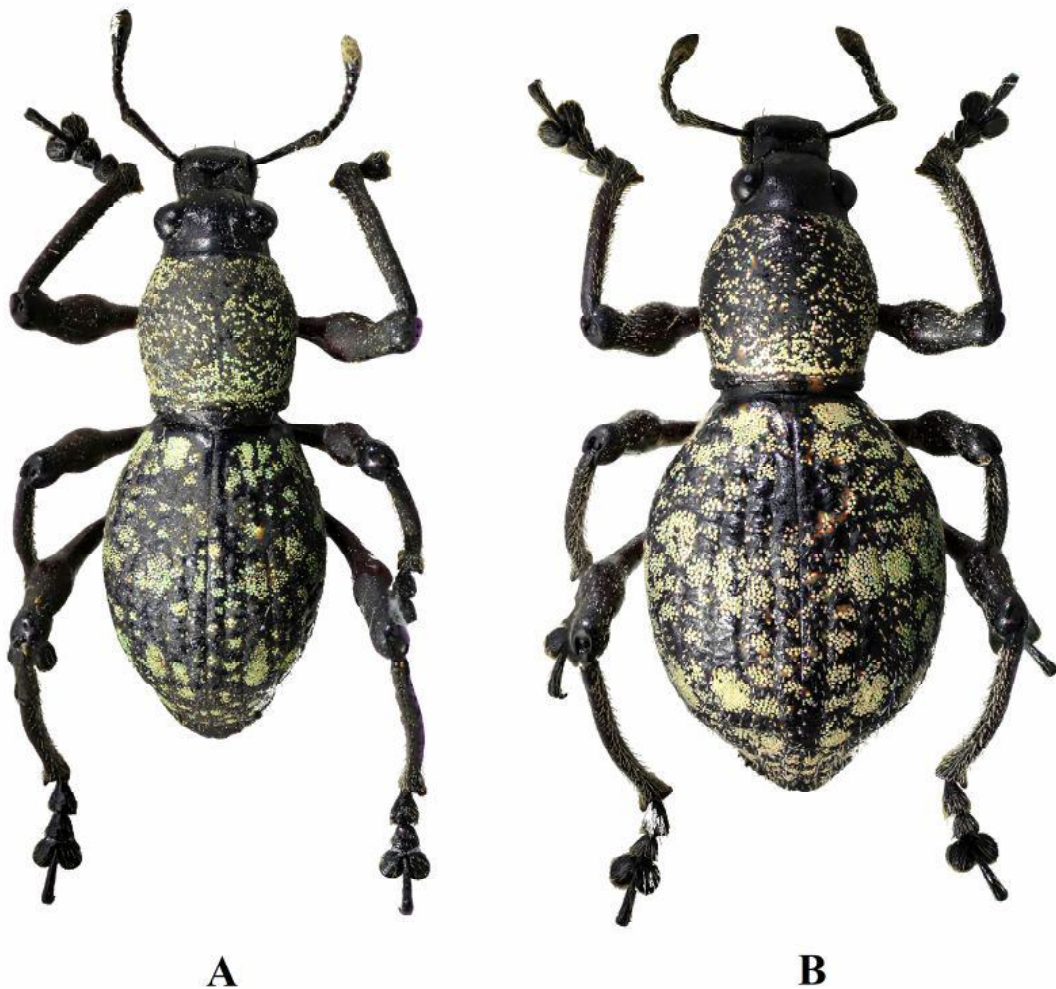
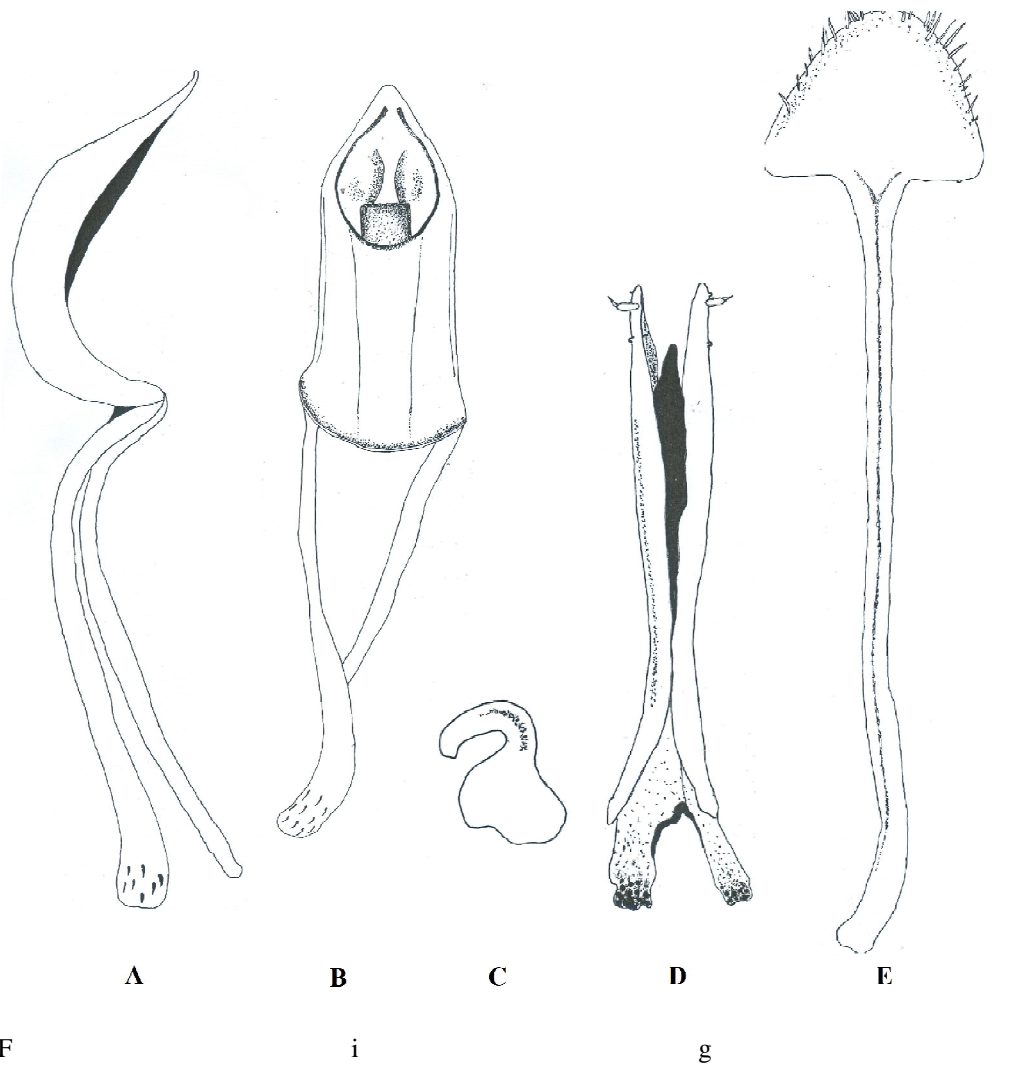


Fig. 1. Dorsal habitus of *Expachyrhynchus palawanensis* sp. nov.: A – male; B – female.

weakly rising to apical  $\frac{1}{2}$  after gradually declined to apex.

Prothorax densely covered with sparse chaotically dispersed patches of round recumbent scales. Sub-opaque, longer than wide, LP/WP: 1.1; with deep irregular puncture, weakly uneven due to rugose convex interstices between punctures; dorsal contour highest slightly before middle apically; sides gradually rounded; basal margin expressed, straight.

Each elytron with the various number of irregular shape scally markings, that are chaotically dispersed across elytra; elytra with weak lustre, not shiny, sub-ellipsoidal, LE/WE: 1.575, wider than prothorax, WE/WP: 1.33, nearly as twice as long as prothorax, LE/LP: 1.9; with deep striae composed punctures; intervals well expressed, moderately granulate; dorsal contour highest just in the middle; sides gradually extending from base, widest just in the middle, then gradually narrowed to apical  $\frac{2}{3}$  where more strongly narrowed to apices.



Legs slender; Genitalia as illustrated (Fig. 2).

**Female.** LB: 12.7–12.9 (mean 12.8); LR: 1.9–2.0 (mean 1.95); WR: 1.5–1.6 (mean 1.55); LP: 3.7–3.8 (mean 3.75); WP: 3.3 (mean 3.3); LE: 8.6–8.9 (mean 8.75); WE: 5.6 (mean 5.6). N = 2. Dorsal habitus as shown in Fig. 1B.

Rostrum LR/WR: 1.25–1.27. Prothorax LP/WP: 1.15–1.21. Elytra strongly wider than in male, LE/WE: 1.53–1.59, much wider than prothorax,

WE/WP: 1.7, more strongly rounded in dorsal contour; in dorsal contour sides gradually extending from base, widest just in the middle, then gradually narrowed to apical 4/5 where more strongly narrowed to apices; legs, antenna, prothorax and elytra more strongly furnished with long light hairs than in males.

**Differential diagnosis.** The new species is very similar in general appearance to *E. chloromaculatus* Yoshitake, 2013 but differs by

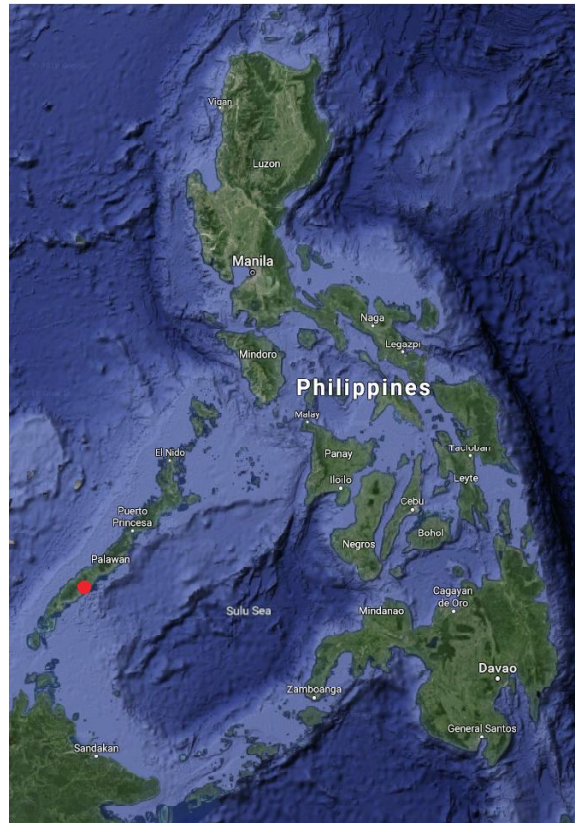


Fig. 3. Distribution map of *Pachyrhynchus palawanensis* sp. nov. (marked with red).

following morphological features: Forehead and rostrum without scaly patch along midline; eyes bigger, more strongly prominent from outline of the head; scaly markings on elytra and pronotum of the new species smaller and more disperse in chaotic order; different shape of male eadeagal body; elytra of the new species more gradually rounded to apex. According to the habitus, the new species could be confused with *P. multipunctatus* Waterhouse, 1841, but sculpture of the prothorax of the new species is very rugose and elytra have deep striate punctures and granulate intervals that are not present in species of the genus *Pachyrhynchus*.

**Etymology.** The new species is named after Palawan Island where the new species is distributed.

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