

## A New Subspecies of *Pachyrhynchus multipunctatus* WATERHOUSE (Coleoptera, Curculionidae) from Cebu Is., the Philippines

Hiraku YOSHITAKE

Tropical Crop Protection Group, Division of Agro-Environment Research, Kyushu Okinawa  
Agricultural Research Center, NARO, 820 Makabe, Itoman, Okinawa, 901–0336 Japan

**Abstract** A new subspecies of *Pachyrhynchus multipunctatus* WATERHOUSE, 1841 is described from Cebu Is. in the Central Visayas, Philippines under the name of *P. m. endoi* subsp. nov.

### Introduction

*Pachyrhynchus multipunctatus* WATERHOUSE, 1841 is a curculionid weevil belonging to the tribe Pachyrhynchini, subfamily Entiminae. This species has hitherto been known only from Bohol Is. in the Central Visayas, Philippines. Recently, I had an opportunity to examine a long series of unique specimens collected from Cebu Is., just beside Bohol Is. They appeared to be conspecific with *P. multipunctatus*, but clearly differ from the typical form in scaly markings. After careful examination, I concluded that there is a distinct local population of *P. multipunctatus* on Cebu Is. In this paper, I describe it as a new subspecies under the species.

### Material and Methods

This study was based on specimens preserved in the Munetoshi MARUYAMA Collection at the Kyushu University Museum, Fukuoka (MCKUM), Natural History Museum, London (NHML), Naturhistoriska riksmuseet, Stockholm (NHRS), and Hiraku YOSHITAKE Collection at the Institute for Agro-Environmental Sciences, NARO, Tsukuba (NIAES). The methods used in this study were the same as those explained in YOSHITAKE (2017). The holotype of the new subspecies described herein is preserved in NIAES.

### Taxonomy

#### *Pachyrhynchus multipunctatus multipunctatus* WATERHOUSE, 1843

(Figs. 1, 2 & 5–8)

*Pachyrhynchus multipunctatus* WATERHOUSE, 1841, 25 (read “March 1st, 1841”); 1842, 219 (read “March 1st, 1841”); 1843, 322 (type locality: “Philippine Islands”; type depository: NHML (?)). — SCHOENHERR, 1845, 385 (reprinting of the original description; “P. Ins. Philippines”).

*Pachyrhynchus multipunctatus*: HELLER, 1912, 311 (placed in “GRUPPE VI”; in key). — SCHULTZE, 1923, pl. 1, fig. 29 (lateral habitus) & pl. 5, fig. 9 (dorsal habitus; Bohol); 1924, 316 (redescription; “BOHOL, Sevilla”). — DALLA TORRE *et al.*, 1931, 33 (cataloged; “Philippinen: Bohol”).

*Pachyrhynchus auroguttatus* CHEVROLAT, 1881, 348 (type locality: “Ins. Philippenses”; type depository: NHRS).

*Pachyrhynchus auroguttatus*: KRAATZ, 1888, 25 (“Philippin.”). — HELLER, 1912, 303 (synonymized with *P. multipunctatus* WATERHOUSE, 1841). — DALLA TORRE *et al.*, 1931, 33 (cataloged; “Philippinen”).

*Diagnosis.* See SCHULTZE (1924: 316) for description. The dorsal and lateral habitus are as shown in Figs. 1 and 2. The body possesses distinct markings of glossy pale green round scales. The prothorax is widest at the middle and moderately arched on sides. The elytra are slightly variable in shape, but the subapical constriction is more or less weak. The male genitalia are as illustrated (Figs. 5–8). The aedeagal body is laminate in apical part whose sides are gently arcuately narrowed from the base to apex (Fig. 5).

*Type material examined.* Possible syntypes in both sexes (NHML) and the holotype male of *Pachyrhynchus auroguttatus* (NHRS).

*Material examined.* Three males and a female from Bohol Is. (NIAES).

*Distribution.* Philippines (Central Visayas: Bohol Is.).

***Pachyrhynchus multipunctatus endoi* YOSHITAKE, subsp. nov.**

(Figs. 3, 4 & 9–12)

*Diagnosis.* This new subspecies is distinctive enough not to be confused with the nominotypical subspecies in having the smaller markings of glossy white scales, the prothorax that is more strongly arched on sides and widest before the middle, and stronger subapical constriction of the elytra. In addition, this new subspecies is slightly different from the nominotypical subspecies in the shape of the male aedeagus.

*Description.* M a l e. Dimensions (in mm): LB: 10.84–11.70 (holotype 11.70 ; mean 10.84). LR: 1.67–2.05 (holotype 2.05; mean 1.81). WR: 1.55–1.85 (holotype 1.85; mean 1.68). LP: 3.20–3.80 (holotype 3.80; mean 3.46). WP: 3.40–4.10 (holotype 4.10; mean 3.70). LE: 6.75–8.00 (holotype 8.00; mean 7.23). WE: 4.70–5.60 (holotype 5.60; mean 5.09). N = 5 for all measurements. Dorsal and lateral habitus as shown in Figs. 3 and 4.

Body with smaller markings of glossy white scales; femora immaculate. Rostrum LR/WR 1.06–1.11 (holotype 1.11). Prothorax WP/LP 1.04–1.12 (holotype 1.08); sides more strongly arched, widest before middle. Elytra LE/WE 1.39–1.44 (holotype 1.43), WE/WP 1.34–1.42 (holotype 1.37), LE/LP 2.06–2.12 (holotype 2.11), more strongly convergent apically to stronger subapical constrictions. Genitalia as illustrated (Figs. 9–12). Laminate part of aedeagal body subparallel-sided in basal 1/3 and then rather strongly arcuately convergent to apex (Fig. 9). Otherwise practically as in the nominotypical subspecies.

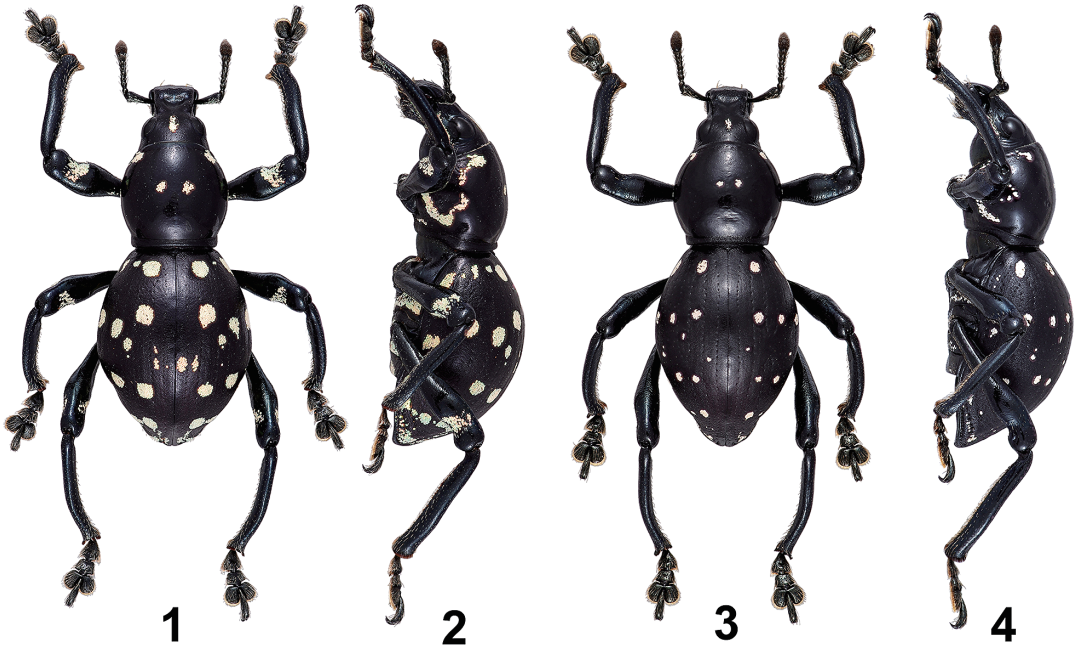
F e m a l e. Dimensions (in mm): LB: 9.95–11.45 (mean 10.95). LR: 1.60–1.95 (mean 1.81). WR: 1.50–1.80 (mean 1.68). LP: 3.10–3.50 (mean 3.39). WP: 3.30–3.90 (mean 3.65). LE: 6.80–7.90 (mean 7.50). WE: 4.90–5.80 (mean 5.52). N = 5 for all measurements.

Rostrum LR/WR 1.07–1.12. Prothorax WP/LP 1.06–1.11. Elytra wider, LE/WE 1.33–1.39, WE/WP 1.48–1.55, and slightly longer, LE/LP 2.19–2.26; subapical constrictions stronger; apices narrower. Ventrite I slightly inflated. Ventrites III and IV narrower. Ventrite V narrower, depressed along lateral margins. Otherwise practically as in male.

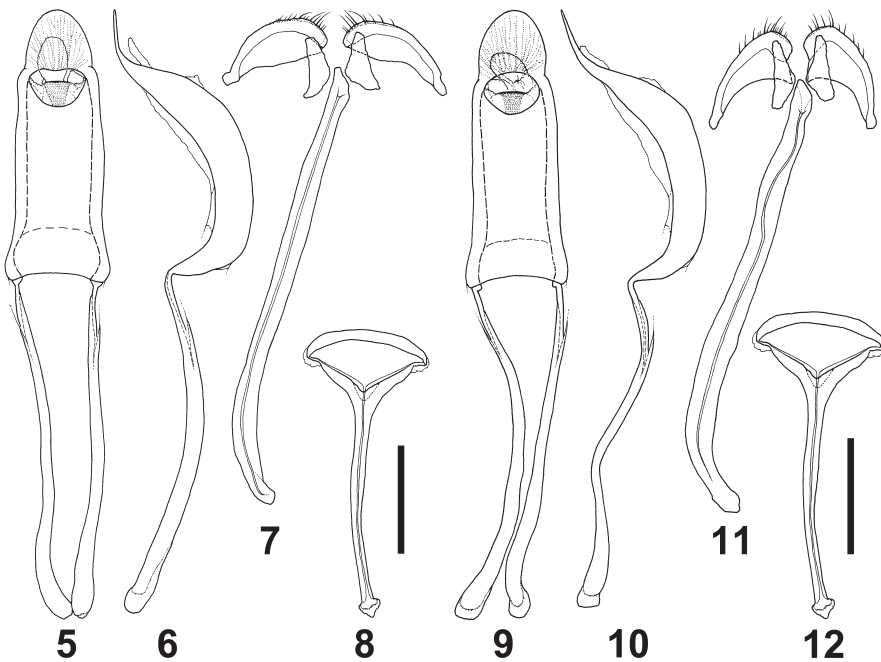
*Type material.* Holotype: male (NIAES), “[ PHILIPPINES: C. Visayas ] / Cebu I., Cebu City, Barangay / Busay, Sitio Rosvelt, / 8.VI.2017, local collector leg.” (typed on a white card), “♂” (typed on a white card), “[ HOLOTYPE ] Male / *Pachyrhynchus* / *multipunctatus endoi* / YOSHITAKE, 2018 / det. Hiraku YOSHITAKE, 2018” (typed on a red card). Paratypes: 89 exs. from the same locality as the holotype (MCKUM & NIAES).

*Distribution.* Philippines (Central Visayas: Cebu Is.).

*Etymology.* Dedicated to Masaki ENDO (Hokkaido University, Sapporo) who collected this new subspecies for the first time and informed Munetoshi MARUYAMA of the exact collecting locality.



Figs. 1–4. Male habitus of *Pachyrhynchus multipunctatus* WATERHOUSE. — 1 & 2, *Pachyrhynchus multipunctatus multipunctatus*, Bohol Is.; 3 & 4, *P. m. endoi* subsp. nov., Cebu Is. — 1 & 3, Dorsal habitus; 2 & 4, lateral habitus.



Figs. 5–12. Male genitalia of *Pachyrhynchus multipunctatus* WATERHOUSE. — 5–8, *Pachyrhynchus multipunctatus multipunctatus*, Bohol Is.; 9–12, *P. m. endoi* subsp. nov., Cebu Is. — 5 & 9, Aedeagus in dorsal view; 6 & 10, ditto in lateral view; 7 & 11, sternites VIII and IX in dorsal view; 8 & 12, tegmen in dorsal view. Scale bars: 1.00 mm.

*Notes.* This is the first representative for the genus *Pachyrhynchus* GERMAR, 1824 from Cebu Is. and is distinct that it belongs to a local population of *P. multipunctatus* by a close similarity in most of taxonomically important features including the male genitalia (Figs. 5–12). The type series is rather uniform in scaly markings.

### Acknowledgments

I thank Max BARCLAY (NHML) and Johannes BERGSTEN (NHRS) for support in examination of concerned type material. I also thank Enzo COLONNELLI (Rome) for help with citations. I appreciate Munetoshi MARUYAMA (KUM) for cooperation so far in my study of the Pachyrhynchini and Naoko NAKAHARA (Tsukuba) for assistance in preparing the manuscript.

### 要 約

吉武 啓：*Pachyrhynchus multipunctatus* WATERHOUSE (鞘翅目ゾウムシ科クチブトゾウムシ亜科)のセブ島産1新亜種。——本論文では、*Pachyrhynchus multipunctatus* WATERHOUSEのセブ島個体群を新亜種*P. m. endoi* subsp. nov.として命名し、記載した。本亜種は、鱗片による斑紋が白色でより小さいことや、上翅先端前のくびれがより強いことなどにより基亜種とは容易に区別できる。*Pachyrhynchus multipunctatus*はこれまでフィリピン・中部ビサヤ地方のボホール島のみから記録されていたが、今回近隣のセブ島にも分布することが初めて明らかになった。なお、セブ島ではこれまでにカタゾウムシ属*Pachyrhynchus* GERMARの分布が知られていなかったため、これが属としての同島初記録となる。

### References

- CHEVROLAT, L. A. A., 1881. Diagnoses de *Pachyrhynchus* nouveaux. *Naturaliste, Paris*, **3**: 348.
- DALLA TORRE, K. W., M. VAN EMDEN & F. VAN EMDEN, 1931. Curculionidae: Brachyderinae: Pachyrhynchini. In SCHENKLING, S. (ed.), *Coleopterorum Catalogus*, (119). 44 pp. W. Junk, Berlin.
- HELLER, K. M., 1912. Philippinische Rüsselkäfer. *Philippine Journal of Science*, (D), *Manila*, **7**: 295–346.
- KRAATZ, G., 1888. Beiträge zur Kenntnifs der *Pachyrhynchus*-Arten. *Deutsche entomologische Zeitschrift, Berlin*, **32**: 25–32.
- SCHOENHERR, C. J., 1845. Genera et Species Curculionidum, cum Synonymia hujus Familiae. Species Novae aut hactenus minus Cognitae, Descriptionibus a Dom. Leonardo GYLLENHAL, C. H. BOHEMAN, et Entomologis aliis illustratae. Tomus octavus. – Pars secunda. Supplementum continens. viii + 504 pp., 27 pls. [Synopsis Geographica]. Roret, Parisiis; Fleischer, Lipsiae.
- SCHULTZE, W., 1923. A monograph of the pachyrhynchid group of the Brachyderinae, Curculionidae: Part I. The genus *Pachyrhynchus* GERMAR. *Philippine Journal of Science, Manila*, **23**: 609–673 + 6 pls.
- SCHULTZE, W., 1924. A monograph of the pachyrhynchid group of the Brachyderinae, Curculionidae: Part I. The genus *Pachyrhynchus* GERMAR. (Concluded.) *Philippine Journal of Science, Manila*, **24**: 309–366 + 3 pls.
- WATERHOUSE, G. R., 1841. Untitled [Descriptions of the species of the curculionideous genus *Pachyrhynchus*, SCH., collected by H. CUMING, Esq., in the Philippine Islands.] *Journal of Proceedings of the Entomological Society of London*, (1841–1846): 23–26. [March 1, 1841.]
- WATERHOUSE, G. R., 1842. Untitled [Descriptions of the species of the curculionideous genus *Pachyrhynchus*, SCH., collected by H. CUMING, Esq., in the Philippine Islands.] *Annals and Magazine of Natural History, London*, (1)8(50): 217–220.
- WATERHOUSE, G. R., 1843. Descriptions of the species of the curculionideous genus *Pachyrhynchus*, SCH., collected by H. CUMING, Esq., in the Philippine Islands. *Transactions of the Royal Entomological Society of London*, 3[1841/1843](4): 310–327.
- YOSHITAKE, H., 2017. Six new taxa and a new synonym of the genus *Pachyrhynchus* GERMAR (Coleoptera, Curculionidae, Entiminae) from the Philippines. *Elytra, Tokyo*, (n. ser.), **7**: 247–263.