

Notes on *Pachyrhynchus* Jewel Weevils (Coleoptera, Curculionidae, Entiminae) from the Papuan Region

Hiraku YOSHITAKE

Institute for Agro-Environmental Sciences, NARO, 3–1–3 Kannondai, Tsukuba, Ibaraki, 305–8604 Japan

Abstract The genus *Pachyrhynchus* GERMAR is recorded from the Papuan region for the first time. *Pachyrhynchus viridis* (CHEVROLAT), comb. nov., which is known from West Papua, Indonesia, is transferred from the genus *Sphenomorpha* BEHRENS. In addition, *Pachyrhynchus ohbayashii* sp. nov. is described from Biak Is., Papua, Indonesia.

Introduction

The tribe Pachyrhynchini belongs to the subfamily Entiminae, family Curculionidae. Presently, this taxon comprises more than 400 species classified into 15 genera, mainly from islands in Southeast Asia (YOSHITAKE, 2013).

To date, 74 species of the genus *Pantorhytes* FAUST, 1892 and 13 species of *Sphenomorpha* BEHRENS, 1887 have been known to occur in the Papuan region (SETLIFF, 2007). As far as I know, however, no species of the genus *Pachyrhynchus* GERMAR, 1824 distributed mainly in the Philippines have hitherto been recorded from the region (cf. DALLA TORRE *et al.*, 1931; ALONSO-ZARAZAGA & LYAL, 1999).

In the course of my study of the tribe Pachyrhynchini, I recognized that one species of *Sphenomorpha*, *S. viridis* (CHEVROLAT, 1879) described from “Nova-Guinea (Dorey)”, is actually a member of the genus *Pachyrhynchus*. In addition, I had an opportunity to examine a specimen of an uncertain *Pachyrhynchus* species collected from Biak Is., Papua, Indonesia. After careful examination, I concluded that it is new to science.

In this paper, I record two *Pachyrhynchus* species from the Papuan region for the first time, with the new combination of a known species and the description of a new species.

Material and Methods

This study was based on specimens deposited at the Institute for Agro-Environmental Sciences, NARO, Tsukuba (NIAES) and Naturhistoriska riksmuseet, Stockholm (NHRS).

The methods used in this study were almost the same as those explained in YOSHITAKE (2011), except that external structures were observed under a Leica M50 stereoscopic microscope, photographs of the holotype male of the new species were taken with a Pentax K-5IIs digital camera, and male genitalia was studied with a Nikon Eclipse Ci optical microscope. The holotype of the new species described herein is preserved in NIAES.



Figs. 1–6. *Pachyrhynchus* spp. from the Papuan region. — 1–3, *Apocyrtus viridis* CHEVROLAT, holotype male (NHRS); 4–6, *P. ohbayashii* sp. nov., holotype male. — 1, 4, Dorsal habitus; 2, 5, lateral habitus; 3, 6, labels.

Taxonomy

Pachyrhynchus viridis (CHEVROLAT, 1879), comb. nov.

(Figs. 1–3)

Apocyrtus viridis CHEVROLAT, 1879, 134 (type locality: “Nova-Guinea (Dorey)”).

Sphenomorpha viridis: DALLA TORRE *et al.*, 1931, 19 (in catalog; “Neuguinea: Dorey”). — SETLIFF, 2007, 168 (in catalog; “West Papua: Dorey”).

Diagnosis. This species is characterized by the following features (Figs. 1 & 2): integument glossy, iridescent, purplish to greenish black; body subglabrous, without any scaly markings; rostrum moderately bulging on apical half; prothorax dorsally weakly convex, with sides moderately expanded from base to just before middle; and elytra subellipsoidal.

Type material examined. Holotype male (NHRS; Figs. 1–3).

Distribution. Indonesia (West Papua: Dorey).

Notes. This beautiful species was originally placed in the genus *Apocyrtus* by CHEVROLAT (1879). Later, DALLA TORRE *et al.* (1931) treated it as a member of the genus *Sphenomorpha* and this placement was followed by SETLIFF (2007). However, my examination of the holotype in 2016 at NHRS revealed that this species is apparently a member of the genus *Pachyrhynchus*. Here I propose a new combination based on the type examination.

Pachyrhynchus ohbayashii sp. nov.

(Figs. 4–10)

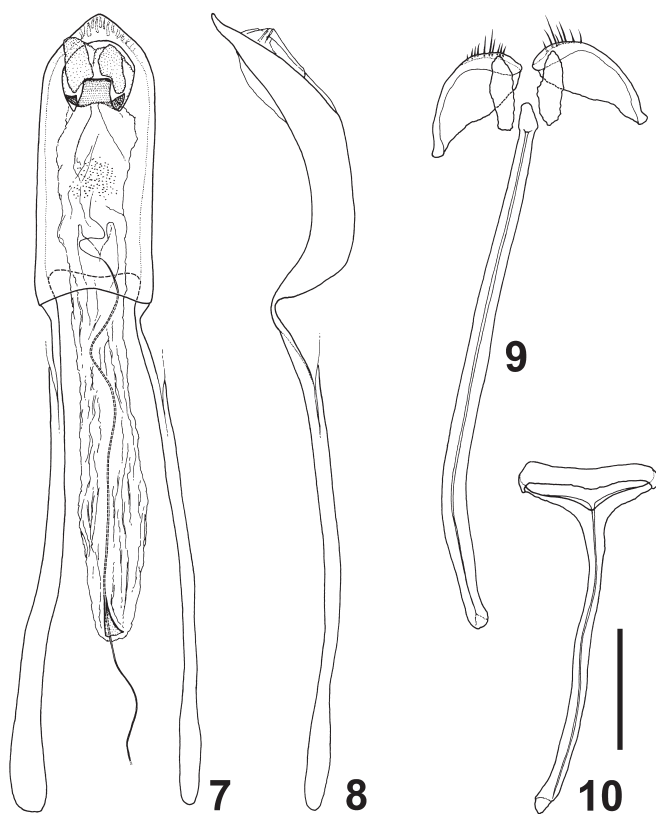
Diagnosis. *Pachyrhynchus ohbayashii* is similar in general appearance to *P. viridis*. However, *P. ohbayashii* is easily distinguishable from *P. viridis* by the following features (Figs. 4 & 5): integument shining black; rostrum weakly bulging on apical half; prothorax dorsally more strongly convex, with sides more strongly expanded from base to middle; and elytra slightly longer, subobovoid.

Description. M a l e. Dimensions: LB: 11.60. LR: 2.10. WR: 1.95. LP: 3.90. WP: 4.10. LE: 8.10. WE: 5.70. N = 1 for all measurements. Dorsal and lateral habitus as shown in Figs. 4 & 5.

Integument wholly shining black, with weak bluish luster on legs.

Body subglabrous, lacking scaly markings. Rostrum dorsally minutely pubescent; each side of rostrum covered with golden short hairs on lateroventral part behind antennal scrobe, and covered with longer hairs on lateral part before it. Coxae sparsely covered with long fine light-colored hairs. Femora partially covered with fine hairs. Tibiae fringed with fine brownish hairs along internal margins, mingled with darker setae; fore tibiae sparsely covered with brownish hairs; vestiture becoming denser along internal margins and on apical parts, especially of ventral surfaces; mid and hind tibiae mostly covered with similar hairs to those on fore pair. Metasternum sparsely pubescent on sides. Venter sparsely pubescent.

Head moderately minutely punctured; forehead flattish, 2.33 times as wide as eye width; eyes moderately large, moderately convex from lateral contour of head. Antennae with scape stout, flattened, slightly shorter than funicle, moderately clavate; funicular segment I nearly three times as long as wide, slightly longer than II; segment II twice as long as wide, twice as long as III; segments III–VI subequal in length, nearly as long as wide; segment VII as long as VI, slightly longer than wide; club narrowly subellipsoidal, 2.50 times as long as wide. Rostrum nearly as long as wide, LR/WR 1.07; dorsum moderately minutely punctured, weakly sulcate along midline near base, with shallow,



Figs. 7–10. Male genitalia of *Pachyrhynchus ohbayashii* sp. nov., holotype. — 7, Aedeagus in dorsal view; 8, ditto in lateral view; 9, sternite IX in dorsal view; 10, tegmen in dorsal view. Scale bar: 1.00 mm.

narrowly arrowhead-shaped concavity on middle of basal half, weakly bulging on apical half; apical bulge dorsally flattish, smooth; dorsal contour of forehead and rostrum subcontinuous; dorsal contour of rostrum nearly flat in basal half, then weakly raised from middle to apical quarter, and finally gradually declined to apex; sides strongly dilated apically, slightly angulate in apicolateral parts; ventral surface simple, not convex along midline. Prothorax subspherical, nearly as long as wide, WP/LP 0.95; dorsum smooth, faintly minutely punctured, moderately convex; dorsal contour highest at middle; lateral contour strongly dilated from moderately constricted base, widest at middle, strongly convergent apicad, and then faintly narrowly constricted at apex; basal margin subtruncate; apical margin shallowly arched; subbasal and subapical grooves become obscure dorsally. Elytra subobovoid, LE/WE 1.42, wider than prothorax, WE/WP 1.39, nearly twice as long as prothorax, LE/LP 2.08, faintly striate-punctured, with intervals evenly flat; dorsum moderately convex dorsally; dorsal contour highest at middle; lateral contour gently dilated from base, widest just behind middle, and then more strongly convergent to apices, without subapical constriction. Metasternum and ventrite I conjointly depressed on disc; discal depression deep on ventrite I, apically reaching apical margin of ventrite I. Legs slender; femora moderately clavate; anterior margins of fore femora and posterior margins of

mid and hind femora weakly emarginate in subapical parts, respectively; tibiae somewhat strongly in-curved, finely serrate along internal margins, mucronate at apices. Genitalia as illustrated (Figs. 7–10).

F e m a l e. Unknown.

Type material. Holotype: male (NIAES), “IRIAN JAYA / North of Biak / Biak Is. / 16. VIII, 1996 / N. Ohbayashi” (typed on white card); “[H O L O T Y P E] Male / *Pachyrhynchus* / *ohbayashii* / YOSHITAKE, 2017 / det. Hiraku YOSHITAKE, 2017” (typed on red card).

Distribution. Indonesia (Papua: Biak Is.).

Etymology. This interesting species is named after Dr. Nobuo OHBAYASHI, who collected the type material.

Notes. Until the present study, nothing has been known about the *Pachyrhynchus* fauna of New Guinea and its adjacent islands. Due to material and information shortages of *Pachyrhynchus* weevils from the Papuan region, it was rather difficult for me to determine the taxonomic identity of the single male specimen collected from Biak Is., a small island located just northwest of New Guinea. It is unique enough morphologically, but still can be regarded as an isolated geographical population of *P. viridis*. After careful consideration, however, I decided to describe it as a new species at this timing based only on the specimen in question by the differences mentioned in the diagnosis, since it contributes greatly to promote further studies of the poorly known *Pachyrhynchus* fauna of the Papuan region. The relationship between *P. viridis* and *P. ohbayashii* will be investigated after accumulation of more concerned specimens from various localities in western part of New Guinea, as well as those from small adjacent islands to Biak Is.

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要 約

吉武 啓：ニューギニア産カタゾウムシ属（鞘翅目ゾウムシ科クチブトゾウムシ亜科）に関する覚書。———カタゾウムシ族の1群であるカタゾウムシ属 *Pachyrhynchus* GERMAR の構成種は、主としてフィリピン諸島に分布することが知られている。本論文では、これまで本属の記録がなかったニューギニア産のカタゾウムシ属について初めて報告した。具体的には、2016年に実施したスウェーデン自然史博物館（ストックホルム）におけるタイプ標本調査の結果に基づき、インドネシア・西パプア州に分布する *Sphenomorpha viridis* (CHEVROLAT) をカタゾウムシ属に移したほか、1996年に同国・パプア州のビアク島において大林延夫博士が自ら採集された本属の未記載種を、新種 *Pachyrhynchus ohbayashii* sp. nov. として命名・記載した。

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