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A new species of the genus *Pachyrhynchus* Germar (Coleoptera, Curculionidae, Entiminae) from Southern Luzon, the Philippines

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Abstract: A new Pachyrhynchini species of the genus *Pachyrhynchus* Germar (Curculionidae, Entiminae), *P. rochaorum* sp. nov., is described from Mt. Banahaw in the Calabarzon Region, Southern Luzon, the Philippines. This new species is similar to *Pachyrhynchus gloriosus* Faust, but can readily be distinguishable from the latter mainly by the elytral shape.

Key Word: taxonomy, description, broad-nosed weevil, wingless, the Philippine Islands.

Introduciton

Pachyrhynchus gloriosus Faust, 1895 is a curculionid weevil belonging to the tribe Pachyrhynchini, subfamily Entiminae. This species is known to occur in Luzon, the Philippines and classified into two subspecies, *Pachyrhynchus gloriosus gloriosus* and *P. g. abbreviatus* Schultze, 1922 (Schultze, 1924), based on differences in scaly markings. The nominotypical subspecies was described from "nördlichen Theil der Insel Luzon" (Faust, 1895), while *P. g. abbreviatus* was originally described as a variety of *P. gloriosus* from "Provinz Bontoc" (Schulze, 1922). Schultze (1924) noted its known locality as "Mount Banahao" (= Mt. Banahaw located between the border of Laguna and Quezon province, Southern Luzon). He raised *P. g.* var. *abbreviatus* to a subspecies of the species and noted its known localities as "Bontoc Subprovice" and "Kalinga Subprovince", but did not mention morphological differences between the type specimen of *P. gloriosus* and the examined specimens from Mt. Banahaw. Recenlty, I had an opportunity to examine a long series of specimens collected from the Quezon side of Mt. Banahaw. They appeared to be closely related to *P. glorious*, but differ in body shape from the species. After careful examination, I concluded that there is a distinct species in Southern Luzon and describe it herein as new.

Material and Methods

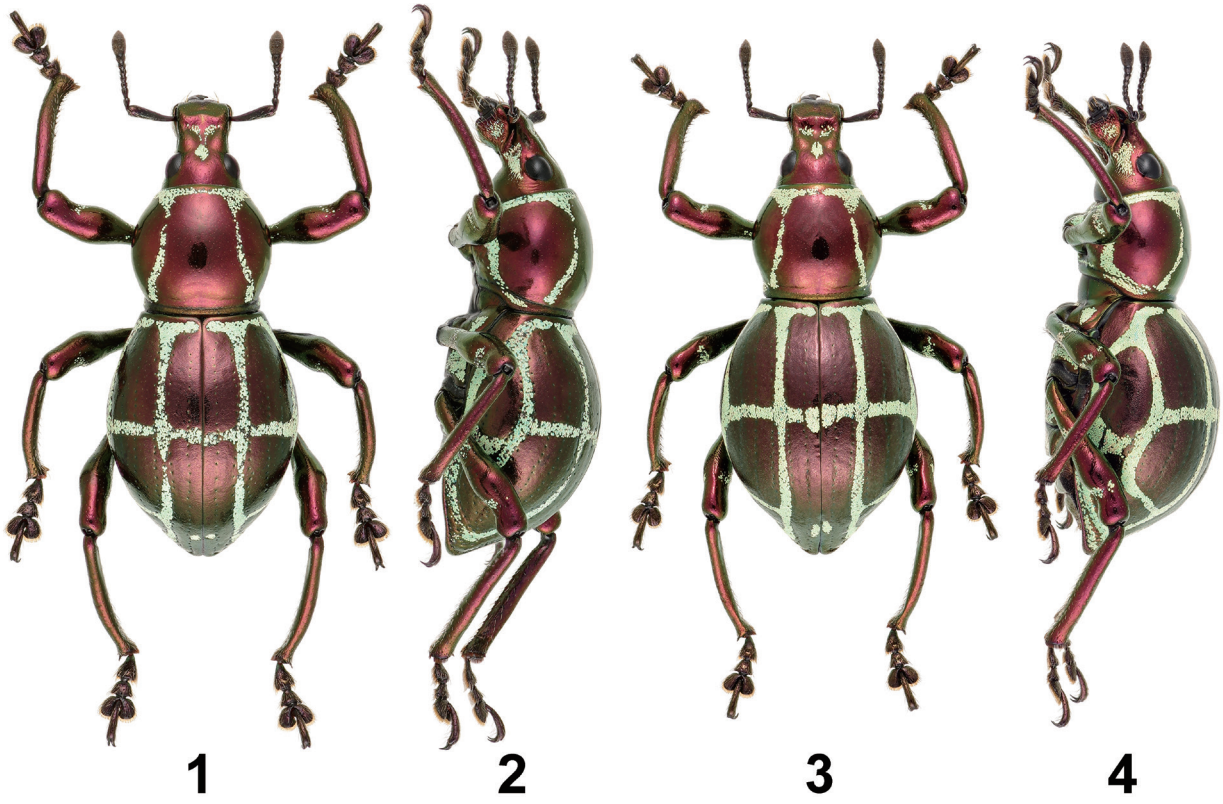
This study was based on specimens deposited in the Munetoshi Maruyama Collection at the Kyushu University Museum, Fukuoka (MCKUM) and Hiraku Yoshitake Collection at the Institute fro Agro-Environmental Sciences, NARO, Tsukuba (NIAES). In addition, the type specimens of related taxa were examined at the Senckenberg Naturhistorisches Sammlungen, Museum für Tierkunde, Dresden (SMTD). The methods used in this study were the same as those explained in Yoshitake (2017). The holotype of the new species described herein is preserved in NIAES.

Taxonomy

***Pachyrhynchus rochaorum* sp. nov.**

(Figs.1-8)

Diagnosis. Pachyrhynchus rochaorum resembles *P. gloriosus* Faust, 1895 in general appearance, but is distinctive



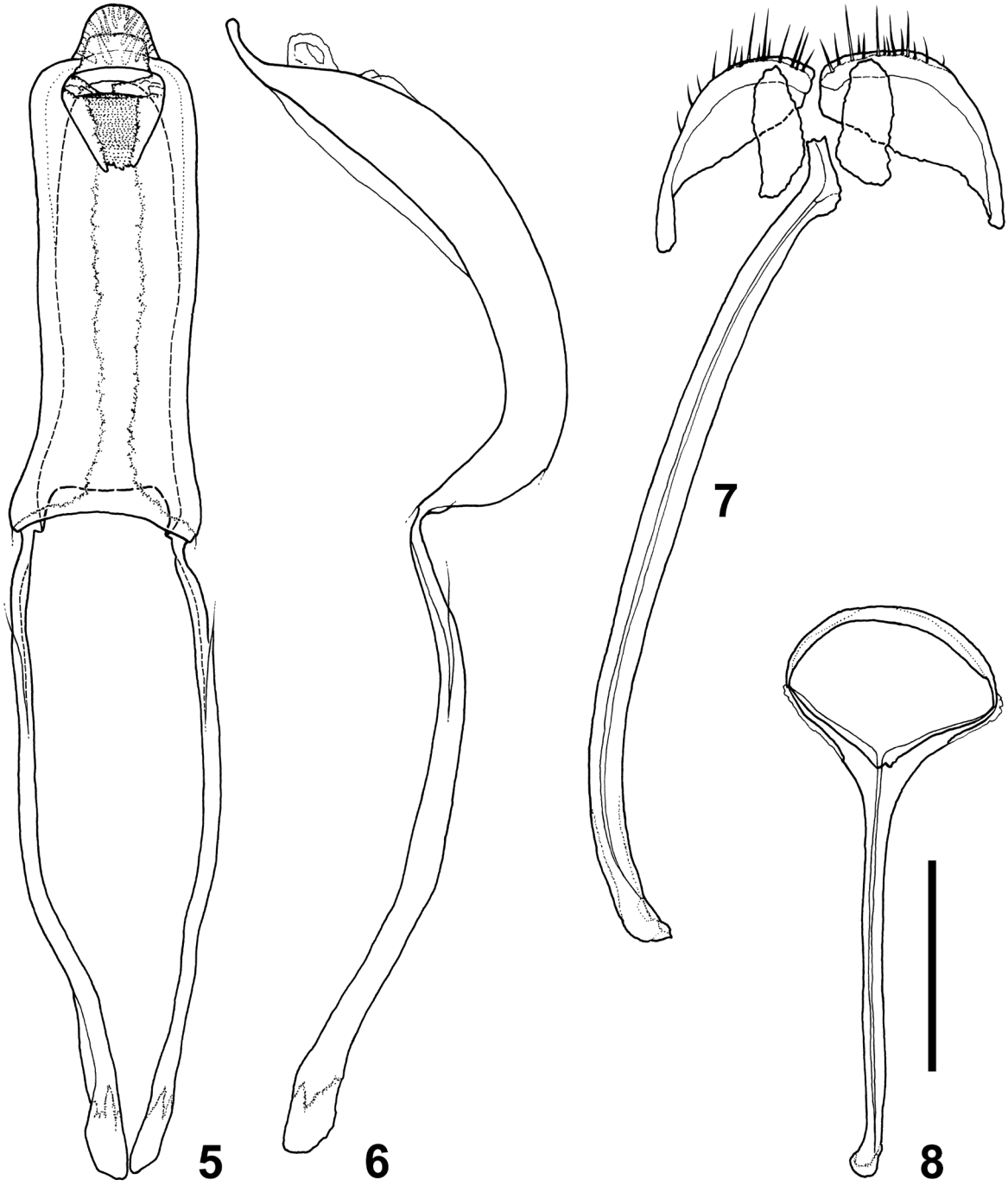
Figs. 1-4. Habitus images of *Pachyrhynchus rochaorum* sp. nov. 1: Male in dorsal view; 2, ditto in lateral view; 3: female in dorsal view; 4, ditto in lateral view.

enough not to be confused with the latter in having the wider and more strongly convex elytra whose lateral contour is more strongly expanded to the widest point and then more rapidly convergent apicad. This new species is also similar to *Pachyrhynchus moellendorffi* Heller, 1899, which appears to be closely related to *P. gloriosus* and was described by a female holotype from "Philippinen" with no information on its precise locality (Heller, 1899), but the female elytra are much wider and more strongly convex in *P. rochaorum* than in *P. moellendorffi*. Rukmane and Cabras (2018) regarded the locality of *P. moellendorffi* as Panay Island in the Western Visayas and described a new subspecies, *P. m. marinduquanus* Rukmane & Cabras, 2018, from Marinduque Island in the Mimaropa Region, but *P. rochaorum* can readily be distinguished also from *P. m. marinduquanus* by the body and vestiture color.

Description. Male. Dimensions (in mm): LB: 10.40-13.00 (holotype 10.40; mean 11.87); LR: 1.85-2.25 (1.85; 2.06); WR: 1.63-1.98 (1.63; 1.83); LP: 3.50-4.28 (3.50; 3.94); WP: 3.83-4.83 (3.83; 4.31); LE: 7.00-8.70 (7.00; 8.00); WE: 5.20-6.40 (5.20; 5.87). N = 5 for all measurements. Habitus as shown in Figs. 1 & 2.

Integument coppery to dark coppery red, partially with green sheen; antennae black but partially with coppery-red sheen; elytra slightly darker; underside partially with green or purplish sheen. Body surface mostly shiny; elytra weakly shiny; underside mostly subopaque.

Body sparsely minutely pubescent, with glittery, yellowish to pale green markings of recumbent round scales. Forehead with widely ovate to lanceolate scaly patch on middle, which extends over and covers middle of base of rostrum. Lateroventral parts of head and rostrum behind antennal scrobes each with transverse subrectangular patch which is composed of general scales but fringed on periphery with smaller hair-like to lanceolate ones; lateroventral parts of rostrum before antennal scrobes with small patch of general scales, mingled with smaller hair-like to lanceolate ones, and each furnished with golden setae along apical margin. Prothorax with the following markings of general scales: 1) longitudinal stripe on each side of pronotum, which extends from before subbasal groove to just behind apex, arcuate internally, sometimes



Figs. 5-8. Male genitalia of *Pachyrhynchus rochaorum* sp. nov. 5: Aedeagus in dorsal view; 6: ditto in lateral view; 7: sternites VIII and IX in dorsal view; 8: tegmen in dorsal view. Scale bar: 1.00 mm.

interrupted subapically, and more or less gradually become widened toward both extremities; 2) fine transverse band along apical margin, which sometimes becomes finer medially; 3) broad lateroventral stripe on each side, which extends from base to apex and whose upper margin is arcuate ventrally. Each elytron with the following markings of general scales: 1) transverse band along basal margin, which extends across entire width except lateromarginal part but is often reduced on sutural part in various degrees; 2) transverse band extending across middle, which is widened and arcuate posteriorly on side, and is sometimes interrupted medially; 3) small oblong patch on subapical part of interval I, which is sometimes accompanied by another patch on interval II; 4) long stripe extending from subbasal to subapical parts of interval III,

which is connected basally with marking 1) and intersected medially with marking 2); 5) shorter stripe extending from subbasal to subapical parts between intervals IV and VII, which is connected basally with marking 1), intersected medially with marking 2), and then strongly incurved apically, and finally connected with marking 4); 6) lateral stripe extending from subbasal part to just before apex, which is connected basally with marking 5), medially with 2), and apically with 4). Fore coxae each with transversely oblong patch of general scales on anterior parts, sparsely mingled with hair-like ones.

Femora each with two bands of general scales on subbasal and subapical parts, mingled with smaller hair-like scales; scaly bands more or less interrupted posteriorly on fore femur but anteriorly on mid and hid femora; subbasal band of fore femur often obscure; mid and hind femora each with stripe of general scales along posterior margin of basal part, mingled with smaller hair-like scales. Tibiae moderately covered with fine hairs, fringed with light-colored hairs and sparse darker setae along internal margins, more densely covered with longer setae apically. Prosternum mostly densely covered with general scales. Intercoxal portion of mesosternum densely covered with general scales, mingled with hair-like ones. Mesepisterna each with elliptical scaly patch. Mesepimera immaculate. Metasternum mostly densely covered with general scales except basal and apical marginal parts glabrous, sparsely mingled with smaller hair-like ones. Ventrite I with a pair of transversely patches of general scales along apical margin, sparsely mingled with hair-like ones. Ventrites I and II each with a pair of transverse patches of general scales along apical margin, each of which is mainly composed of general scales but sparsely mingled with hair-like ones; patches on ventrite I subrectangular while those on ventrite II elliptical and often confluent with each other. Ventrites III and IV immaculate. Ventrite V immaculate, furnished with long suberect hairs on apical part.

Head moderately and finely punctured; forehead flattish, nearly 2.4 times as wide as eye width; eyes relatively small, moderately convex from lateral contour of head; each eye highest at middle. Antennae moderately slender, with scape moderate in length, nearly 0.9 times as long as funicle, moderately clavate; funicular segment I nearly 1.8 times as long as wide, slightly longer than and as wide as II; segment II 1.55 times as long as wide, 1.75 times as long as III; segments III-VI subequal in length, nearly as long as wide; segment VII 1.25 times as long as VI, slightly wider than long; club subellipsoid, 1.77 times as long as wide, nearly as long as funicular segments V-VII combined. Rostrum relatively slender, barely longer than wide, LR/WR 1.07-1.17 (holotype 1.14, mean 1.13); dorsum moderately and finely punctured, foveate at middle of base, with broadly obtriangular concavity on basal half, moderately bulging on apical half; apical bulge flattish dorsally, slightly depressed on middle of basal part; dorsal contour of frons and rostrum subcontinuous; dorsal contour of rostrum faintly arcuately declined from base to middle, then gradually raised from middle to apical 1/3, and finally arcuately declined to apex; lateral contour moderately dilated apicad; apicolateral corners invisible from above due to well-developed pterygia; ventral surface simple, not convex along midline. Prothorax subspherical, barely wider than long, WP/LP 1.08-1.13 (holotype 1.09, mean 1.09); dorsum moderately and minutely punctured, moderately convex, simple on each side, not costate basally; dorsal contour highest just behind middle; lateral contour moderately to strongly dilated from strongly constricted base, widest just before middle, then more strongly convergent apicad, and finally weakly constricted just behind apex; basal margin subtruncate; apical margin subtruncate or faintly arched anteriorly; subbasal groove entirely distinct; subapical groove become obscure dorsally. Elytra broadly subobovate, LE/WE 1.34-1.40 (holotype 1.35, mean 1.36), nearly twice as long as prothorax, LE/LP 2.00-2.06 (2.00, 2.03), moderately wider than prothorax, WE/WP 1.33-1.38 (1.36, 1.36), weakly striate-punctured, with flat coriaceous intervals; dorsum moderately convex; dorsal contour highest just before middle; lateral contour moderately arcuately dilated from base to widest point at middle, then more strongly convergent to faint subapical constrictions; apices separately shallowly rounded. Legs slender; femora moderately clavate; anterior margins of fore femora and posterior margins of mid and hind femora moderately emarginate in subapical parts, respectively; tibiae moderately incurved apicad, sparsely bluntly serrate along internal margins, sharply mucronate at apices; apical mucrones large on fore legs, medium-sized on

mid legs, and small on hind legs. Metasternum and ventrite I conjointly depressed on disk; depression large but reaching apical margin of ventrite I at apex. Ventrite I rugose and finely granulate on disk; each granule bearing fine short hair. Ventrite II widely flattened and moderately minutely punctured. Ventrite V nearly twice as wide as long, weakly rugose, flattish but slightly depressed on lateromarginal parts, widely truncate at apex. Genitalia as illustrated (Figs. 5-8).

Female. Demensions (in mm): LB: 11.20-12.65 (mean 11.97); LR: 1.83-2.10 (1.95); WR: 1.70-1.98 (1.82); LP: 3.30-3.75 (3.57); WP: 3.70-4.45 (4.05); LE: 7.90-9.00 (8.40); WE: 5.83-6.75 (6.40). N = 5 for all measurements.

Rostrum LR/WR 1.06-1.09 (mean 1.07). Prothorax WP/LP 1.09-1.22 (mean 1.13). Elytra LE/WE 1.26-1.36 (mean 1.31), much longer and wider than prothorax, LE/LP 2.24-2.47 (2.35), WE/WP 1.51-1.65 (1.58); dorsum more strongly convex; dorsal contour highest before middle; lateral contour more strongly dilated apically from base to widest point, then more sharply convergent to stronger subapical constrictions, and finally more acutely produced at apices. Conjoint depression on metasternum and ventrite I shallower. Ventrite I not granulate. Ventrite V slightly longer, nearly 1.8 times as wide as long, more strongly depressed on lateromarginal parts; apex much narrower, shallowly notched at middle. Otherwise, essentially as in male.

Type material. Holotype: male (NIAES), "[PHILIPPINES: Luzon] / Calabarzon region, Quezon, / Dolores, Brgy. Kinabuhayan, Mt. Banahaw, 23. XII. 2016, / native collector leg." (typed on white card); "[H O L O T Y P E] Male / *Pachyrhynchus* / *rochaorum* / Yoshitake, 2020" (typed on red card). Paratypes: 73 exs. from the type locality (MCKUM & NIAES).

Distribution. Philippines (Luzon: Calabarzon Region: Quezon province).

Etymology. This new species was named in honor of Jayson Rocha and his family (Dolores) for their courtesy to my friend, Munetoshi Maruyama.

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フィリピン・ルソン島南部産カタゾウムシ属（コウチュウ目ゾウムシ科クチブトゾウムシ亜科）の１新種

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要旨：カタゾウムシ族 Pachyrhynchini（ゾウムシ科クチブトゾウムシ亜科）に属するカタゾウムシ属 *Pachyrhynchus* Germar にフィリピン・ルソン島南部産の１新種を認め、*P. rochaorum* sp. nov. として命名し、記載した。本新種はルソン島北部から中部に分布する *Pachyrhynchus gloriosus* Faust, 1895に似るが、上翅がより幅広く、その輪郭は基部から中央までより強く広がり、その後より急に先端へ向かって狭まることなどにより後者とは容易に識別可能である。