

## Two New Coprophagous Beetles (Coleoptera, Scarabaeidae) from the Philippines

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**Abstract** Two new coprophagous scarabaeid species, *Ochodaeus matsudai* sp. nov. and *Phacosoma philippinense* sp. nov., are described from the Philippines. The former resembles *O. decoratus* ARROW, while the latter is related to *P. punctatum* BOUCOMONT.

Through the courtesy of three friends of mine, I was able to examine a long series of scarabaeid specimens from the Philippines. Though a number of scarabaeid species have already been described from this country by some previous authors, there are still many others awaiting descriptions.

In this paper, I will describe two new species, *Ochodaeus matsudai* sp. nov. and *Phacosoma philippinense* sp. nov., from the Philippines. All the holotypes designated in this paper are deposited in the National Science Museum (Nat. Hist.), Tokyo.

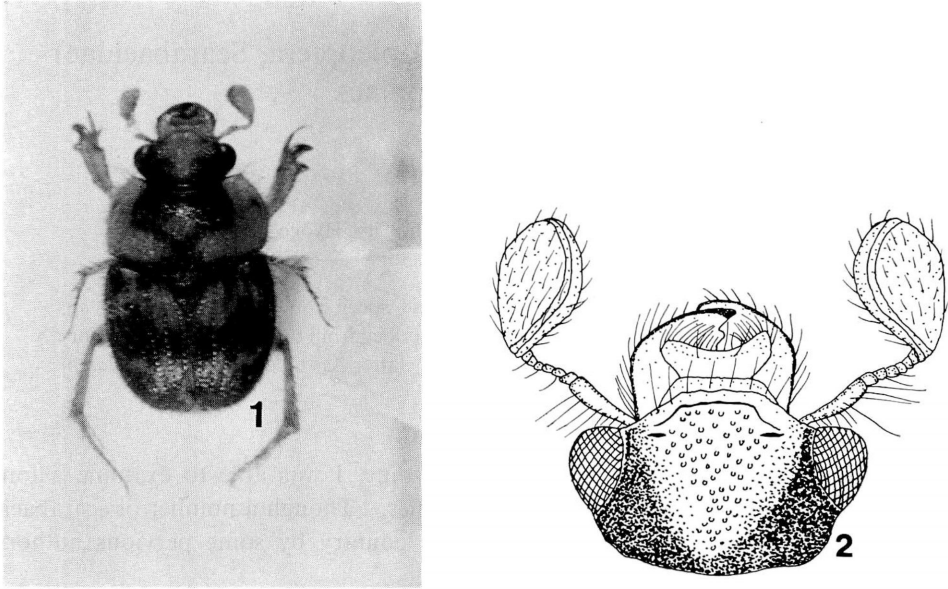
Before going further, I wish to express my sincere gratitude to Mr. Masao TÔYAMA for his constant guidance. I am also indebted to Messrs. Kiyoshi MATSUDA, Koichi SUGINO and Shigeru TAKEDA for their kind offer of materials.

### *Ochodaeus matsudai* sp. nov.

(Figs. 1–2)

*Male.* Head yellowish brown except for blackish brown latero-posterior areas. Pronotum reddish brown, with five dark brown markings and two paler bands, which are arranged as follows: two large markings behind the anterior margin in the middle; a small round spots just before the middle on each side; transverse markings along the base in the middle; two narrow bands distinctly converging posteriorly between anterior and basal markings. Scutellum blackish brown. Elytron blackish brown, with two distinct yellowish brown irregular bands, which are arranged as follows: a large basal band between the suture and seventh interval, and a posterior one between the second to seventh interval just behind the middle. Mandible yellowish brown except for darker outer margin. Protibiae yellowish brown except for apical dark brown parts.

Head broader than the length excluding mandibles (2.6:2.0): frons shallowly depressed, densely clothed with semirecumbent long yellowish hairs, rather closely covered with coarse granules, the interspace between granules weakly microgranulose;



Figs. 1-2. *Ochodaeus matsudai* sp. nov., male; 1, dorsal view; 2, head, dorsal view.

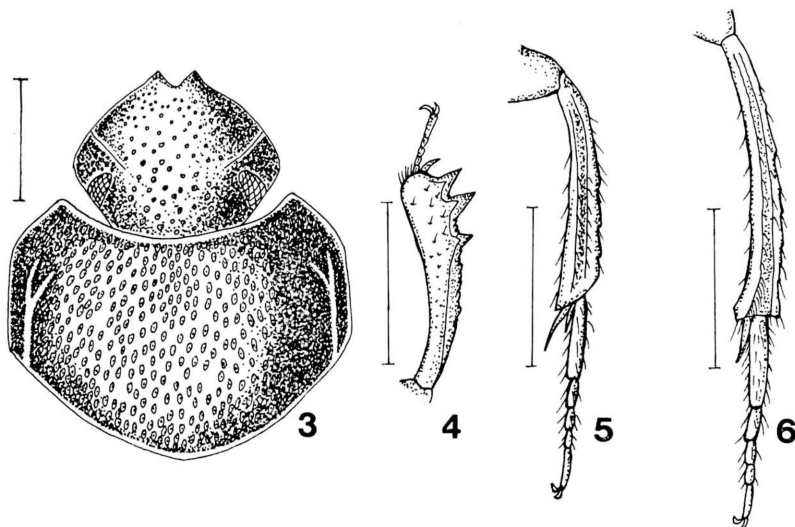
eyes well prominent; clypeal suture subtrapezoidal; clypeus distinctly carinate along the anterior margin, which is rather strongly produced; labrum with the anterior margin shallowly emarginate.

Pronotum convex, broader than long (4.0: 2.2); anterior margin sinuate near the sides, deeply and rather angularly emarginate in the middle; basal margin produced posteriorly and obtusely angulate at the middle, with the marginal line broadened near the middle; anterior angles subrectangular in lateral aspect; posterior angles rounded; surface densely clothed with semirecumbent long yellowish hairs, and densely covered with coarse granules, which become smaller towards the sides, the interspace between granules weakly microgranulose. Scutellum slightly longer than wide, acute at apex, rather densely granulose.

Elytra broader than long (4.3: 3.3); disc shallowly punctato-striate, the punctures distinct and separated by one to two times their diameter from each other, the intervals between striae closely covered with granules, which are smaller than those on head and pronotum, the interspace between granules weakly microgranulose; surface densely covered with long semirecumbent yellowish hairs, which are shorter and partly darker than those on head and pronotum.

Prosternum obsoletely longitudinally carinate at the middle, but the carina does not project anteriorly; anterior margin roughly serrate in the middle. Pygidium slightly convex apically, densely granulose and sparsely punctate. Metatarsus long, with the first segment about as long as the following four united, terminal spur slightly shorter than the first segment.

Length: 7.3 mm; width: 4.2 mm.



Figs. 3-6. *Phacosoma philippinense* sp. nov., male; 3, head and pronotum, dorsal view (scale, 1 mm); 4, protibia, dorsal view (scale, 1 mm); 5, mesotibia, dorsal view (scale, 1 mm); 6, metatibia, dorsal view (scale, 1 mm).

Holotype: ♂, Asin Hot Spring, Luzon Is., Philippines, 10-V-1978, M. BESITAN lgt.

*Notes.* The present species is somewhat similar to *O. decoratus* ARROW, 1904, but can be distinguished from it by the following characteristics: 1) clypeus narrow and rather abruptly sloped anteriorly, while in *O. decoratus*, it is broad and gently sloped anteriorly; 2) clypeal suture subtrapezoidal, instead of being arcuate; 3) frons shallowly depressed, instead of being flat; 4) markings on elytra distinctly different.

***Phacosoma philippinense* sp. nov.**

(Figs. 3-6)

*Male.* Body moderately convex, opaque; head and pronotum brown to blackish brown, but the ante-marginal parts are slightly paler; elytra also brown to blackish brown, each with three small pale yellowish spots, the inner spot being located between the second and fourth striae behind the middle, the outer one between the fifth and eighth striae behind the middle, and the apical small one on the third interval at apex, antennae light brown except for blackish brown clubs; mouth-parts and legs light brown.

Head subhexagonal, broader than long (1.7: 1.3), densely covered with rather small ocellate punctures except for the shining basal part of clypeal teeth, the interspace between punctures weakly microgranulose; genae roundly prominent laterally; clypeal suture absent medially, and finely defined laterally; clypeus deeply incised at the

middle, with reflexed tooth on each side of the incision.

Pronotum moderately convex, broader than long (2.8:1.7); anterior margin emarginate and weakly sinuate near the sides, and finely bordered; lateral margins obtusely angulate at the apical third, parallel in posterior two-thirds, finely bordered throughout; basal margin broadly rounded and bordered; anterior angles prominent; posterior angles obtuse; disc with longitudinal weak carinae near posterior angles along lateral margins, branching in apical parts; surface relatively densely covered with elongate ocellate punctures, bearing a short semirecumbent hooked setae, the interspace between punctures distinctly microgranulose.

Elytra broader than long (3.1:2.8), though narrower than in the congeners; disc moderately convex, rather deeply, distinctly but finely punctato-striate, the intervals between striae weakly crenulate and sparsely covered with inconspicuous small punctures bearing short semirecumbent hooked setae, the interspace between punctures more roughly microgranulose than those on head and pronotum.

Ventral surface more or less microgranulose. Metasternum rather closely covered with setigerous ocellate or horseshoe-shaped punctures medially, and the punctures becoming coarser and sparser laterally. Abdomen with the second to fourth sternites bearing two or three transverse rows of setigerous ocellate punctures on each basal half, the fifth and sixth entirely and rather densely covered with similar punctures. Pygidium strongly convex, rather densely covered with indefinite small punctures. Profemur with a triangular internal tooth at the basal two-fifths, and distinctly bent down at apex. Protibia rather broad, expanded apically, with three sharp apical external teeth, and serrate on external margin basally. Mesotibia slender, with straight internal edge. Metafemur with the internal edge triangularly produced at the basal three-eighths, and serrate in basal three-eighths. Metatibia slender, with internal edge abruptly dilated at apex. Metatarsus rather short, about 0.7 times as long as metatibia.

*Female.* Elytra slightly broader than those of male. Pro- and metafemora with simple internal margin, without any projections.

Length: 5.5–5.7 mm; width: 3.1–3.5 mm.

Holotype: ♂, Mt. Apo, Mindanao Is., Philippines, 2-IV-1978, K. SUGINO lgt. Paratypes: 1 ♂ 4 ♀♀, same data as for the holotype: 4 ♂♂ 3 ♀♀, same loc., 1-IV-1978, S. TAKEDA lgt.

*Notes.* The present new species is somewhat related to *P. punctatum* BOUCOMONT, 1914, from Celebes, but can be distinguished from it by the following characteristics: 1) body larger; 2) dorsal surface without any metallic lustre, while in *P. punctatum*, it bears distinct metallic lustre; 3) elytra distinctly punctato-striate, instead of being simply striate except for the first punctato-stria.

## 要 約

越智輝雄：フィリピン産食糞性コガネムシ類の2新種。——フィリピンから *Ochodaeus* 属の1種と *Phacosoma* 属の1種、合計2種の食糞性コガネムシを記載し、前者に、*O. matsudai*、後者に *P. philippinense* という新名を与えた。

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