

A New Apterous Aphodiine (Coleoptera, Scarabaeidae) from Southwest China, with Proposal of a New Subgenus

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Abstract An apterous aphodiine beetle belonging to the genus *Aphodius* is described, *Aphodius kishimotoi* sp. nov., from easternmost Sichuan, Southwest China, and a new subgenus, *Guanyinaphodius*, is erected for this new species.

Through the courtesy of Dr. Shun-Ichi UÉNO, Emeritus Curator of the National Science Museum (Nat. Hist.), Tokyo, the authors were given an opportunity of studying a strange aphodiine species, obtained by Dr. Toshio KISHIMOTO from a doline in East Sichuan.

This species exhibits very peculiar facies, with small shortened body constricted between the prothorax and elytra. The authors have carefully examined this species and concluded that it is new to science and furthermore, belongs to a new subgenus. It will be described in the present paper under the name of *Aphodius* (*Guanyinaphodius*) *kishimotoi*.

The authors wish to express their hearty thanks to Dr. S.-I. UÉNO, who allowed them to study the present species. Their deep appreciation is due to Dr. T. KISHIMOTO, who submitted the invaluable specimens for the present study. They thank Mr. Patrice BORDAT for his invaluable comment and offering a literature.

The holotype to be designated is deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Subgenus *Guanyinaphodius* subgen. nov.

Type species: *Aphodius* (*Guanyinaphodius*) *kishimotoi* sp. nov.

Body small, ovate, strongly convex above, constricted between fore and hind bod-

ies, almost glabrous. Head rather wide, gently convex in middle, without tubercles or ridges; clypeus simple in front with straight apex; genae feebly produced laterad; frons and vertex not modified. Pronotum moderately transverse, strongly convex above; base bordered by sparsely punctured groove; basal and lateral margins microscopically crenulate; disc without emargination or declivity anteriorly. Scutellum medium-sized and triangular. Elytra shortened, strongly, deeply punctato-striate; intervals noticeably convex; humeri reduced, without humeral teeth; apices rounded. Protibia tridentate, with terminal spur bent intero-ventrad in male; apical bristles of meso- and metatibiae unequal in length; tarsi rather slender; claws rather fine.

Distribution. Southwest China.

Notes. This new subgenus somewhat resembles the subgenus *Aparammoecius* in general features, but can be distinguished from the latter by the smaller body with head rather smooth, not modified but simply convex in middle, abruptly inclined apicad, apex straight, genae gently produced laterad, pronotum smooth, sparsely scattered with large coarse punctures in the lateral parts, and elytra distinctly shortened and hemispherical, the humeri extremely reduced because of apterism without humeral teeth, and the disc deeply punctato-striate.

STEBNICKA (1994, p. 77) revived *Aparammoecius* PETROVITZ (1958, p. 138), and regarded *Paremadus* NAKANE (1967, p. 4) as a junior synonym of the former. In his revision of the subgenus *Paremadus* from Himalaya, PITTINO (1997) mentioned new records and new species, and inadvertently treated *Aparammoecius* PETROVITZ, 1958 as a junior synonym of *Paremadus* NAKANE, 1967. This is evidently an error, and PETROVITZ's name has a priority over NAKANE's.

Aphodius (Guanyinaphodius) kishimotoi sp. nov.

(Figs. 1–4)

Body length: 2.6 mm.

Rather ovate, distinctly constricted between fore and hind bodies, strongly convex above. Apterous. Brownish black, anterior margin and ventral side of head, gula, apical and lateral margins of pronotum and legs dark reddish brown; antennae and maxillary palpi pale brown; head moderately shining and somewhat sericeous, pronotum, scutellum and elytra moderately and somewhat vitreously shining, ventral surface mostly alutaceous.

Head transverse, gently and evenly convex, micro-shagreened, without tubercles or ridges; clypeus wide, impunctate, apex almost straight in middle, rounded laterally, fronto-clypeal border very finely sulcate; genae gently produced laterad, weakly depressed before eyes, sparsely scattered with microscopic punctures; frons wide, scattered with larger and smaller punctures. Eyes medium-sized.

Pronotum large and transverse, about 1.5 times as wide as long; apex slightly produced in middle, sinuous laterally, not bordered; base widely produced, bordered by sparsely punctured groove, very slightly sinuous near hind angles, with basal margin

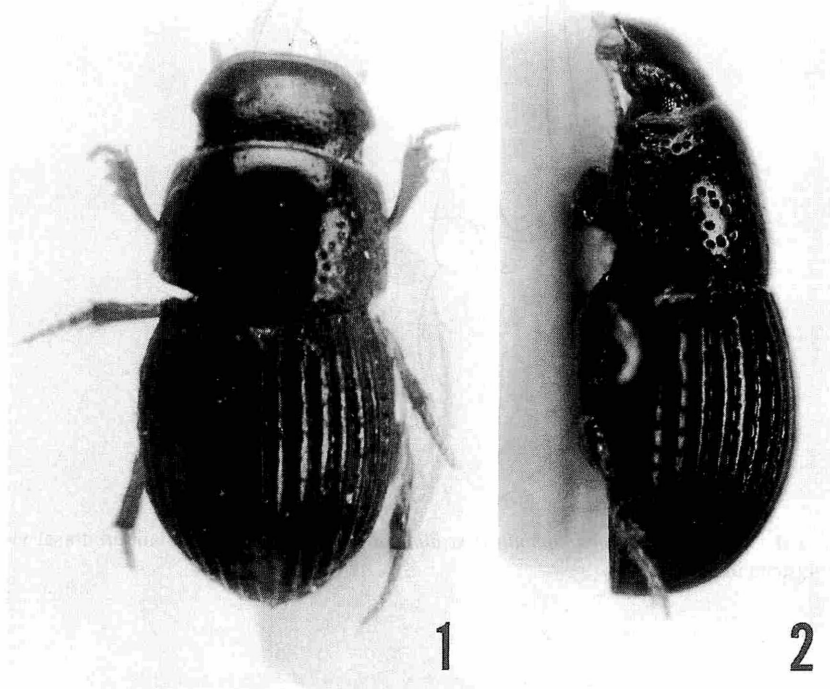
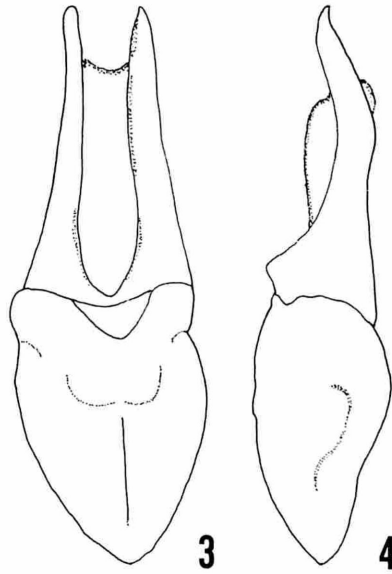


Fig. 1–2. *Aphodius (Guanyinaphodius) kishimotoi* sp. nov., holotype ♂; 1, habitus; 2, lateral view.

minutely crenulate; sides steeply declined to lateral margins, which are crenulate, with weak swellings at the middle; front angles rounded, hind angles obtusely angulate; disc strongly, evenly convex, very weakly micro-shagreened, scattered with large punctures in lateral, posterior and medial parts, and also scattered with very small ones in antero-medial part, the smaller ones often intermixed among larger ones in the other parts. Scutellum medium-sized, elongated triangular, feebly convex in middle, almost impunctate.

Elytra subovate, distinctly narrower than prothorax at bases, widest at basal 1/3; dorsum strongly, somewhat hemispherically convex, highest at the middle; disc punctato-striate, all the ten striae markedly deepened, the punctures rather small and sparsely set; intervals noticeably convex, scattered with very minute punctures (visible under 40×); base ridged, particularly in lateral portions; humeri reduced, without humeral teeth; hind wings absent.

Protibia rather strongly widened apicad, with three outer teeth and a terminal spur, which is bent intero-ventrad in male; apical bristles of meso- and metatibiae unequal in length; upper terminal spur of metatibia about half the length of 1st segment of metatarsus.



Figs. 3–4. *Aphodius (Guanyinaphodius) kishimotoi* sp. nov.; 3, male genitalia in dorsal view; 4, same in lateral view.

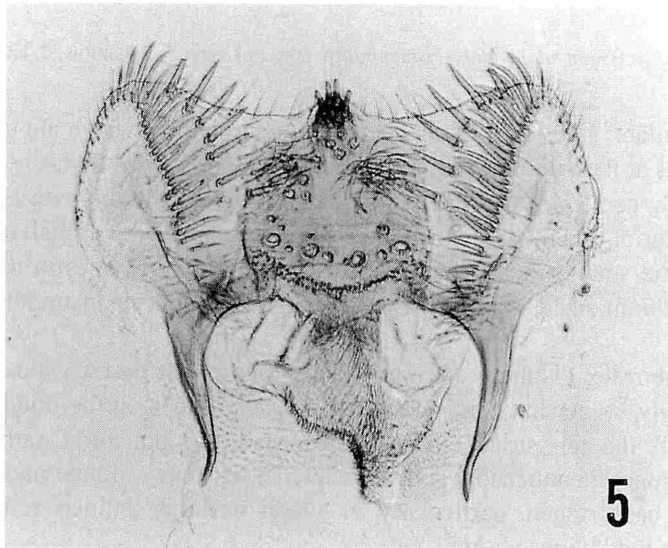


Fig. 5. *Aphodius (Guanyinaphodius) kishimotoi* sp. nov., epipharynx.

Holotype: ♂, Guan'yin Dong Doline, 1,600 m alt., Longqiao, Longqiao Xiang, Fengjie Xian, E. Sichuan, 18-X-2000, T. KISHIMOTO leg. (NSMT). Paratypes: 8 exs., same data as for the holotype.

Notes. This new species somewhat resembles the apterous species, *Aphodius* (*Aparammoecius*) *nishikawai* MASUMOTO, 1996, from Taiwan, but can be discriminated from the latter by the body smaller and shorter, with clypeus almost straight in front, genae more strongly produced laterad, pronotum wider and without the anterior bisinuous declivity, elytra more ovate and deeply striate, intervals more noticeably convex, and upper terminal spur of metatibia shorter (about 2/3 the length of 1st segment of metatarsus in *A. nishikawai*).

The specimens of the type series were sifted out from moist humus deposited under a thicket of *Rubus* and other deciduous trees growing on the steep slope near the bottom of the doline at the entrance to Guan'yin Dong Cave. This doline is surrounded by cultivated field and pine stand, but maintains a moist shaded environment favourable for mesophilous beetles.

STEBNICKA (1994) described an apterous species, *Aphodius tarokensis*, from Taiwan. Though the type localities of the two species, *A. tarokensis* and *A. nishikawai*, are not remote from each other, the latter is distinguishable from the former by the pronotum bisinuously declivous in front and the epipharynx and male genitalia differently shaped. Following her treatment, *Aphodius* (*Paremadus*) *nishikawai* should be transferred to the subgenus *Aparammoecius*.

要 約

益本仁雄・木内 信：四川省東部から発見された後翅の退化したマグソコガネの新亜属新種。——四川省の東端に位置する奉节県观音洞で、東京農業大学岸本年郎博士が採集された、後翅の退化したマグソコガネ属(*Aphodius*)の甲虫を検討したところ、新亜属・新種であることが明らかになったので、*Aphodius* (*Guanyinaphodius*) *kishimotoi* subgen. et sp. nov.と命名した。

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