

A New Apterous Species of the Genus *Aphodius* (Coleoptera,
Scarabaeidae) Found on a High Mountain
of Northern Taiwan¹⁾

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Abstract An apterous aphodiine scarabaeid beetle belonging to the genus *Aphodius* is described from Mt. Shenmachen Shan of the Nanhu Mountains in the northern part of Taiwan, under the name of *Aphodius (Paremadus) nishikawai* sp. nov. It can be easily distinguished from other congeneric species by the shortened elytra with reduced humeral parts due to the absence of hind wings.

Through the courtesy of Dr. Shun-Ichi UÉNO, Emeritus curator of the National Science Museum (Nat. Hist.), Tokyo, I was given an opportunity of examining great many Taiwanese materials in the collection of the Museum. I found a single specimen of a strange scarabaeid beetle obtained by Dr. Y. NISHIKAWA on a high mountain, Mt. Shenmachen Shan of the Nanhu Mountains, in the northern part of Taiwan. It possesses a very interesting peculiarity: obviously shortened elytra with distinctly reduced humeri. The specimen seemed to be a member of the subgenus *Paremadus* of the genus *Aphodius* at first sight. I showed the specimen to one of my best friends in entomology, Dr. M. KIUCHI, for asking his opinion. After a careful examination, he kindly informed me that he agreed with my judgement. I am therefore going to describe it as a new species in the present paper.

I wish herewith to express my hearty thanks to Dr. Shun-Ichi UÉNO, who allowed me to study and describe the present species. Deep appreciation is also due to Dr. Makoto KIUCHI, the National Institute of Sericultural and Entomological Science, Tsukuba City, for his support in the course of this study. Thanks are also due to Dr. Yoshiaki NISHIKAWA, Ohtemon-Gakuin University, Osaka, for providing with the specimen.

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

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Aphodius (Paremadus) nishikawai sp. nov.

(Figs. 1–4)

Body length: ca. 3.3 mm.

Oblong-ovate and rather distinctly constricted between fore and hind bodies; strongly convex above. Apterous. Brownish black, with apical margin of head, antero-lateral margins of pronotum, legs and ventral surface lighter in colour, antennae and mouth parts pale yellowish brown; dorsal surface glabrous and vitreously shining, ventral surface feebly and somewhat alutaceously shining.

Head rather large and transversely subhexagonal, raised posteriad; clypeus rather large, micro-shagreened and scattered with punctures, which are intermixed with smaller punctures, feebly convex in middle, steeply declined to apex, which is weakly emarginate, each side of the emargination rounded and slightly reflexed, with fronto-clypeal border very finely sulcate; gena feebly produced laterad, coriaceous and sparsely punctate, with the anterior area connected with clypeus rimmed along the outer margin; frons wide and rather short, sparsely scattered with minute punctures, which are often intermixed with larger punctures; vertex impunctate and inerm; eyes medium-sized.

Pronotum large and quadrate, 1.4 times as wide as long; apex slightly but



Fig. 1. *Aphodius (Paremadus) nishikawai* sp. nov., holotype ♂; habitus.

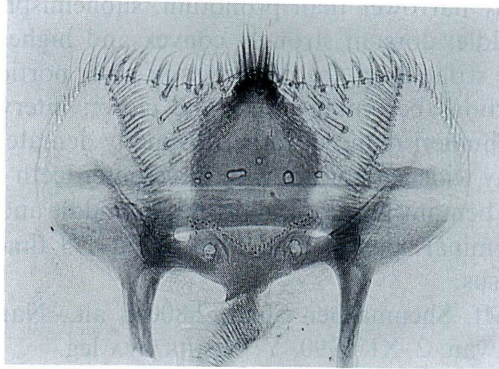
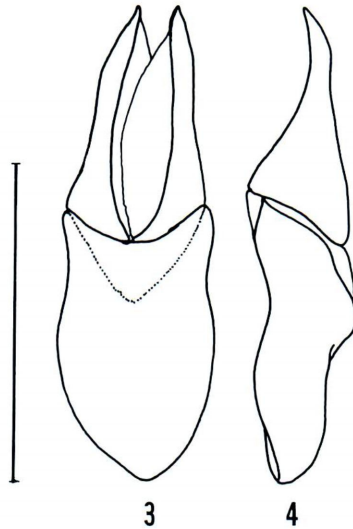


Fig. 2. *Aphodius (Paremadus) nishikawai* sp. nov., epipharynx.



Figs. 3-4. *Aphodius (Paremadus) nishikawai* sp. nov. — 3, Male genitalia in dorsal view; 4, same in lateral view. Drawn by M. KIUCHI. (Scale: 1 mm.)

widely emarginate in middle, very feebly bisinuous, not bordered; base widely produced posteriad and finely rimmed, clearly bordered by a fine, sparsely punctured groove; front angles rounded, hind angles obtusely angulate in dorsal view; sides steeply declined to lateral margins, which are finely rimmed, the rim being feebly crenulate, the crenulation visible under 30× magnification; disc strongly convex, broadly smooth in middle, sparsely scattered with minute punctures, which are intermixed with larger but sparser punctures, with lateral portions somewhat alutaceous, scattered with larger and denser punctures. Scutellum triangular and almost impunctate.

Elytra obviously narrower than pronotum, subhemispherical and widest a little before the middle; dorsum strongly convex and highest at basal 1/3; disc punctato-striate, the striae deep, the punctures in inner portion small and sparse, those in lateral portions becoming larger and closer; intervals slightly convex, almost impunctate; humeri reduced, rather distinctly dentate; hind wings absent.

Fore tibia gently widened apicad, with three outer teeth and a terminal spur, whose apex is gently bent inwards; apical bristles of middle and hind tibiae unequal in length; upper terminal spur of hind tibia about 2/3 times the length of 1st segment of hind tarsus.

Holotype: ♂, Mt. Shenmachen Shan, 2,800 m alt., Nanhu Mts., Taichung Hsien, northern Taiwan, 2–XI–1990, Y. NISHIKAWA leg.

Notes. This is the first apterous species of the genus *Aphodius* to be recorded not only from East Asia but also from the Palearctic and Ethiopian Regions. Other than the absence of the hind wings, most features possessed by this species agree with those of the members of the subgenus *Paremadus*, i.e., the pronotum with the base bordered by a punctured groove and the postero-lateral margins crenulate, the elytra clearly punctato-striate with humeral teeth, etc.

要 約

益本仁雄：北部台湾の高山で発見された後翅の退化したマグソコガネの1新種。——台湾北部の南湖大山系審馬陣山において、追手門学院大学の西川喜朗教授が発見された特異な形態をしたマグソコガネ属の甲虫を、国立科学博物館名誉研究員上野俊一博士のご好意で検討する機会を得た。この種は、日本に分布しているツヤチャグロマグソコガネ亜属の特徴を多くそなえているが、上翅が明らかに短く、基部が狭くなっていることが目につく。これは、後翅が退化しているためにほかならない。本種を新種と認め、*Aphodius (Paremadus) nishikawai* sp. nov.と命名した。後翅の退化したマグソコガネ属の種の発見は、旧北区およびエチオピア区で今回が初めてである。

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