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A New Species of the Genus *Gabrius* (Coleoptera, Staphylinidae) from Taiwan

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Abstract A new staphylinid beetle belonging to the island groups of the genus *Gabrius* is described and illustrated from Taiwan under the name of *Gabrius satoi*. The present new species may be easily recognized from its congeners on its markedly different configuration of genitalia in the male.

Up to the present, ten species of the genus *Gabrius* have been reported from Taiwan (SCHILLHAMMER, 2001). Examining the material collected at Pilu (Hualien Hsien, 2,400 m), Sungchuangkang (Nantou Hsien, 2,400 m) and Tsuifeng (Nantou Hsien, 2,200 m) in the subalpine zone of Taiwan, I have found an interesting species belonging to the island groups (SCHILLHAMMER, 1997) of this genus. After a careful examination, it becomes clear that the species is new to science. I will describe and illustrate it in the present paper

Before going further, I wish to express my cordial thanks to Dr. Yasuaki WATANABE of Tokyo University of Agriculture for his continuous guidance and encouragement, and to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his kindness extended to me in various ways. Hearty thanks are also due to Mr. Itsuro KAWASHIMA for his assistance in preparing the illustration of whole insect inserted in the present paper.

Gabrius satoi sp. nov.

(Figs. 1–8)

Head and pronotum black to dark brown, with distinct metallic olivaceous-green lustre; elytra and abdomen dark brown, posterior margins of abdominal segments obscurely dark reddish; palpi and mandibles pale brown; antennae dark brown, basal three segments polished, the remainings pale brown and opaque, almost dull; legs pale yellowish to dark yellowish.

Body length: 7.5–8.5 mm.

Head rounded rectangular, slightly longer than wide (HL/HW = 1.16), widest just before posterior angles and indistinctly narrowed anteriad; frons with shallow but distinct triangular depression; disc almost impunctate, median interocular punctures widely separated, nearly 3.5 times as distant from each other as from ocular punctures,

postero-laterally with sparse and rather strong setiferous punctures; surface covered with microscopic lineate ground sculpture. Eyes small and not protruding from lateral lines of head, its longitudinal diameter about twice as long as postocular area (PO/CL =2.09), tempora slightly divergent towards broadly rounded hind angles. Antennae long, almost reaching the posterior margin of pronotum, and hardly thickening towards apex, 1st segment dilated apically, about 3.6 times as long as broad, 2nd about a half as long as 1st (2nd/1st=0.49), 3rd elongate, a little longer than 2nd (3rd/2nd=1.34), 4th to 6th subequal in length to one another and distinctly longer than broad (length/width =1.43), 7th to 10th subequal in length to one another and as long as wide, the apicalmost subacuminate towards the tip, markedly longer than 10th (11th/10th=1.82) and distinctly longer than wide (11th/10th=1.86).

Pronotum oblong, a little longer than wide (PL/PW=1.33) and about as wide as head (HW/PW=1.00), widest in anterior third and slightly sinuately narrowed towards

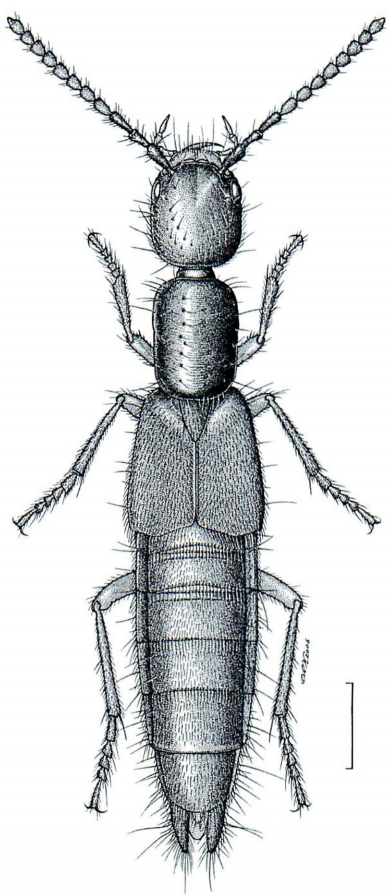
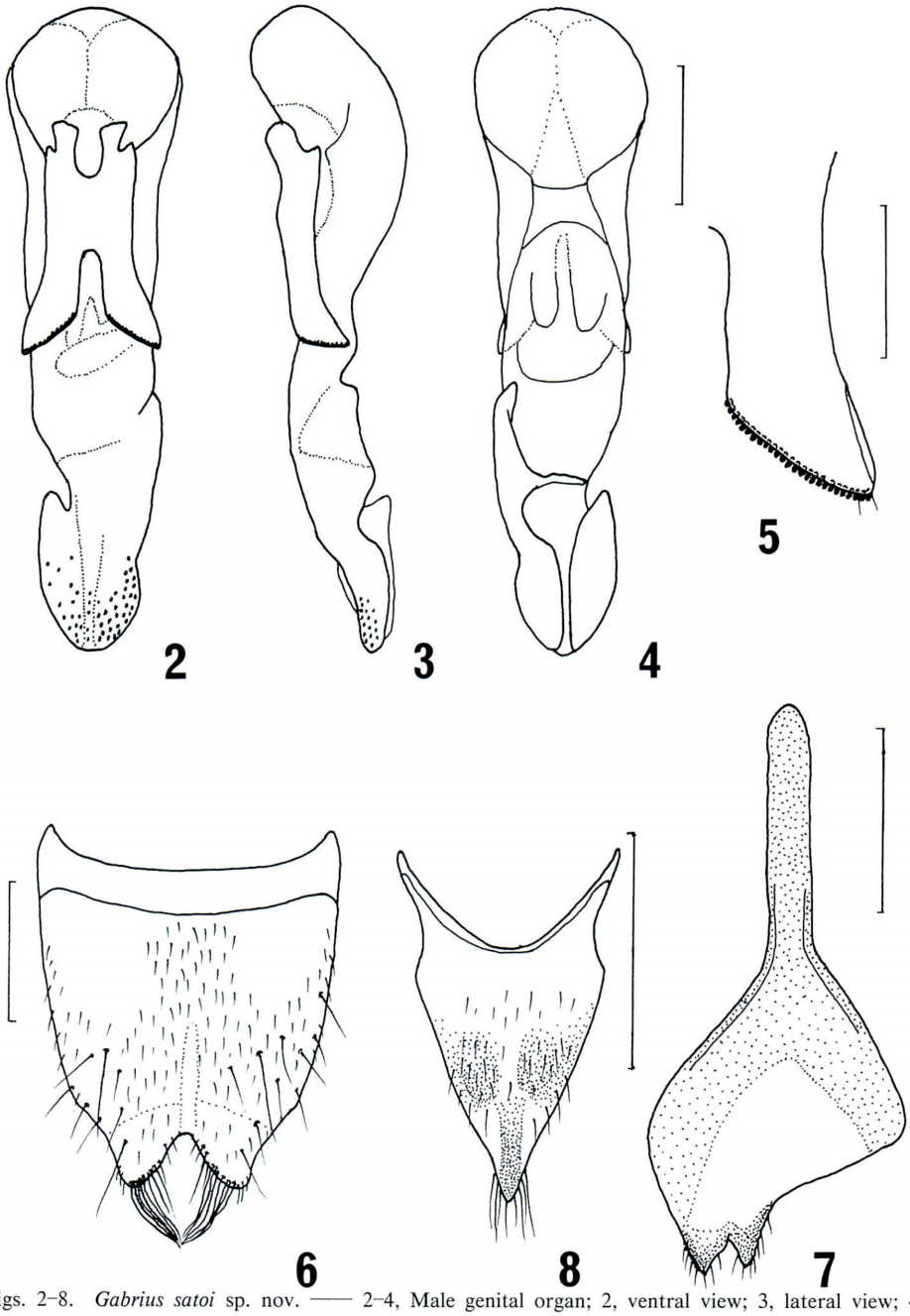


Fig. 1. *Gabrius satoi* sp. nov., ♂, from Pilu, Hualien Hsien, in Taiwan. Scale: 1.0 mm.



Figs. 2–8. *Gabrius satoi* sp. nov. —— 2–4, Male genital organ; 2, ventral view; 3, lateral view; 4, dorsal view; 5, apical portion of paramere; 6, 8th abdominal sternite in male; 7, 9th abdominal sternite in male; 8, 10th abdominal tergite in female. Scale: 0.5 mm for 2–4, 6–8; 0.2 mm for 5.

base; anterior angles obtuse and not visible from above, posterior angles narrowly rounded; disc on either side of the middle with somewhat irregular row of 7–9 punctures, and outside this series with 4 or 5 punctures; surface covered with fine microscopic lineate ground sculpture as on head.

Elytra subtrapezoidal, somewhat dilated posteriad and flat above, slightly longer than wide (EL/EW=1.03), and somewhat longer than pronotum (EL/PL=1.22) distinctly wider than pronotum (EW/PW=1.57); lateral sides almost straight; posterior angles broadly rounded; surface finely and densely punctured, and densely covered with brownish pubescence, devoid of microscopic ground sculpture.

Abdomen elongate, slightly dilated towards the anal end; surface covered with finer and denser punctures and pubescence than on elytra, and with fine and very dense transverse ground microsculpture, elevated area between two basal lines on the first three visible tergites densely punctate, the punctures forming a single row; 8th sternite in male (Fig. 6) gradually narrowed towards apex, apical three quarters of the sternite a little bent downwards; apical margin moderately deeply triangularly emarginate, a small median area before emargination flattened and smooth; latero-apical margins of emargination furnished with long and thick setae becoming gradually shorter medially; male sternite 9 (Fig. 7) symmetrical at the proximal portion, distal portion largely membranous, with apical piece distinctly shifted laterad, moderately sclerotized and pigmented, with shallow medio-apical emargination, very shortly and sparingly setose, without long apical setae; 10th tergite of female (Fig. 8) weakly sclerotized, nearly semi-membranous; gradually narrowed towards obtusely pointed apical process, and provided with seven to eight long apical setae; disc bearing a pair of moderately large oblong patches of pigmentation.

Male genital organ (Figs. 2–4) rather large, moderately depressed, and well sclerotized, very peculiar; median lobe long and broad, apical half asymmetrically sinuate and twisted, top broadly rounded; paramere (Fig. 2) with branches shorter and wider, separated mediobasally by moderately deep, U-shaped emargination, peg setae of branches (Fig. 5) arranged along apical margin in dense row.

Type series. Holotype: ♂, near Pilu, about 2,400 m alt., Hualien Hsien, 10–VIII–1977, Y. SHIBATA leg. Paratypes: 1♀, Tsuifeng, about 2,200 m alt., Nantou Hsien, 28–VII–1973, Y. SHIBATA leg.; 1♀, Sungchuankang, about 2,400 m alt., Nantou Hsien, 27–III–1987, Y. SHIBATA leg.

The holotype is deposited in the collection of the Laboratory of Entomology, Tokyo University of Agriculture, and the paratypes are preserved in the author's private collection.

Distribution. Taiwan (at present known from the northern to central mountain ranges at elevation above 2,200 m).

Notes. This species belongs to the island groups: "many species show a strong external resemblance with the East-Asian species related to *Philonthus spadiceus* SHARP, and nearly all of them have strongly asymmetrical aedeagi, some highly modified" (SCHILLHAMMER, 1997, 62). Until now, 21 species have been known from Sumatra,

Malaysia, Java, Bali, Borneo, Sulawesi, the Philippines, New Guinea and the Solomon Isls. (SCHILLHAMMER, 1997, 2000). After that, two unnamed species of this group were reported from Taiwan (SCHILLHAMMER, 2001, 410).

This new species can be easily distinguished from the other members of the island groups by larger size, having distinct metallic olivaceous-green lustre on head and pronotum, 7–9 punctures on pronotum and uniquely shaped male genitalia. Also, this new species is similar in general appearance to *Gabrius schillhammeri* SHIBATA, 1996 from Japan, but is readily separable from the latter by markedly different configuration of genital organ in the male.

All the specimens of the type series were found from heaps of wet fallen leaves accumulated by the water at the sides of narrow mountain streams.

Etymology. The present new species is dedicated to the memory of the late Dr. Masataka SATÔ, who was an outstanding coleopterist and greatly contributed to the coleopterology.

要　　約

柴田泰利：台湾産ホソコガシラハネカクシ属 (*Gabrius*) の 1 新種. —— 台湾産ホソコガシラハネカクシ属の研究は SCHILLHAMMER (2001) によって行われ，現在までに 10 種が記録されている.

今回，亜高山帯の花蓮県碧緑 (2,400 m), 南投県松泉崗 (2,400 m), 同県翠峰 (2,200 m) の小渓流付近に堆積している落葉下から採集した標本を調べたところ未記載種を見出したので，*Gabrius satoi* と命名・記載した．この種は island groups 種群 (SCHILLHAMMER, 1997) に含まれ 21 種が知られている．なお，台湾からはこの種群の 2 種が採集されているが，いずれも雌個体のため種名決定にはいたらなかった (SCHILLHAMMER, 2001)．本種はこの属の他種とは雄の第二次性徴および交尾器の特異な形状などによって容易に識別される.

なお，種小名の *satoi* は，すぐれた甲虫学者で甲虫研究に多大の業績を残された佐藤正孝博士に献名したものである.

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