

## Two Taiwanese Staphylinid Beetles Related to *Quedius abnormalis* (Coleoptera, Staphylinidae)<sup>1)</sup>

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**Abstract** Two Taiwanese species belonging to the group of *Quedius* (*Microsaurus*) *abnormalis* are dealt with. One of them, collected on Mt. Neng-kao-pei-feng (2,870 m alt.), proves new to science and is described under the name of *Q. (M.) masuzoi*. The other, from San-liu-chiu on Mt. Hsüeh Shan in northern Taiwan, is not properly described as it is known only from a female specimen.

The group of *Quedius* (*Microsaurus*) *abnormalis* is an assemblage of depigmented staphylinid beetles with reduced eyes. Its members have hitherto been recorded from the three southern main islands of Japan, and are either endogean at high altitudes or cavernicolous at lower elevations. They are not abundant at every known locality, sometimes known from only one or two specimens.

Early in the summer of 1961, Dr. Shun-Ichi UÉNO obtained a staphylinid apparently belonging to this species-group at a height of Mt. Hsüeh Shan in northern Taiwan, and submitted it to the present author for taxonomic study. Only a glance was needed for recognition of its systematic affinity, but the single specimen known was unfortunately a female and not useful for determining its true relationship. Thus, the specimen remains unnamed up to the present.

Leading an expedition party sent by the National Science Museum, Tokyo, Dr. UÉNO visited high mountains of Taiwan again early in the summer of 1989, and though he failed in re-obtaining the staphylinid on Mt. Hsüeh Shan, he took a specimen of a closely related species on Mt. Neng-kao-pei-feng in the central part of the island. It was a male, and a careful study of its genitalia proved that it was specifically different from any of the known Japanese members of the species-group.

The main purpose of this paper is to introduce this new species into science, because it is not only interesting from the taxonomic view-point but seems to afford an indisputable evidence of a close faunal relationship between the high mountains of Taiwan and the Japanese Islands. Adding to its description, the species from Mt. Hsüeh Shan will be recorded without proper scientific name.

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the opportunity of studying on the interesting staphylinids and much valuable advice on the present study. Thanks are also due to Professor Masataka SATŌ and Dr. Mamoru OWADA, who participated in the expedition and collaborated with Dr. UÉNO in searching for high altitude insects in Taiwan.

*Quedius (Microsaurus) masuzoi* Y. WATANABE, sp. nov.

(Figs. 1-4)

Body length: 9.4 mm (from front margin of head to anal end).

Body elongate, parallel-sided and subdepressed above. Colour light reddish yellow and shining, with antennae and legs somewhat darkened, abdomen feebly iridescent.

Head suborbicular, depressed above, slightly transverse (width/length=1.05), with the margins of postocular areas arcuate and gradually narrowed posteriad; surface smooth, covered with microscopic coriaceous ground sculpture; temporal area provided extensively with numerous setiferous punctures, the bristles being blackish and decumbent forwards; eyes very small and flat, the longitudinal diameter of each eye only one-sixth as long as the postocular area. Cephalic chaetotaxy as follows: one front seta situated at each side of front margin, one post-antennal seta just behind postero-external corner of each antennal tubercle; one long supraorbital seta inside each eye, four or so internal temporal setae ranged in a longitudinal series inside each temporal bristled part, two temporal setae in each temporal bristled part, and three infraorbital setae ranged in a longitudinal series inside infraorbital crest. Antennae relatively short, not extending to the posterior margin of pronotum; three proximal segments polished, each dilated towards the apex; the remainings opaque, 1st segment robust and more than twice as long as broad, 2nd a little longer than broad (length/width=1.33), though much shorter than 1st (2nd/1st=0.40), 3rd elongate, obviously longer than broad (length/width=2.17) and more than 1.5 times as long as 2nd, 4th to 10th almost equal in length to one another, 4th slightly and each of 8th to 10th distinctly transverse, apicalmost a little longer than broad (length/width=1.38) and more than 1.5 times as long as 10th, subacuminate towards the tip.

Pronotum subquadrate and convex medially, slightly transverse (width/length=1.06) and distinctly broader than head (pronotum/head=1.17), widest near the middle and contracted both anteriorly and posteriorly; lateral parts deflexed in front though more or less deplanate behind the widest part, lateral margins finely bordered, gently arcuate in anterior two-thirds and nearly straight in posterior third, anterior margin gently arcuate and not bordered at the middle, posterior margin rounded and bordered throughout like lateral margins; anterior angles rectangular but blunt at the corners, posterior ones widely rounded and almost effaced; surface smooth though covered with extremely fine coriaceous ground sculpture as on head, provided with a longitudinal series of three small setiferous punctures in anterior half on each side of the median line, of which the anteriormost is situated just behind anterior margin, each



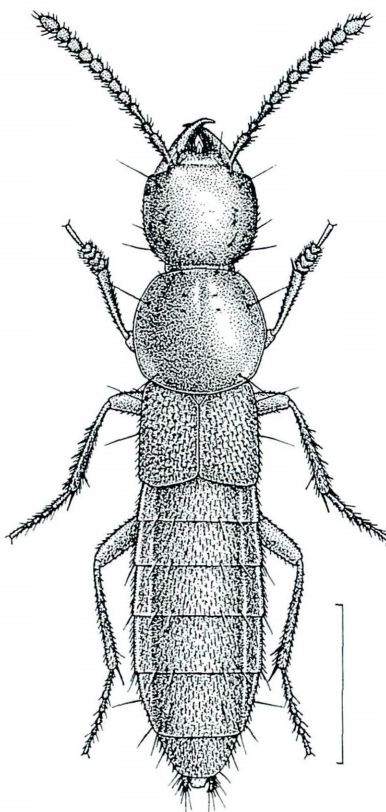
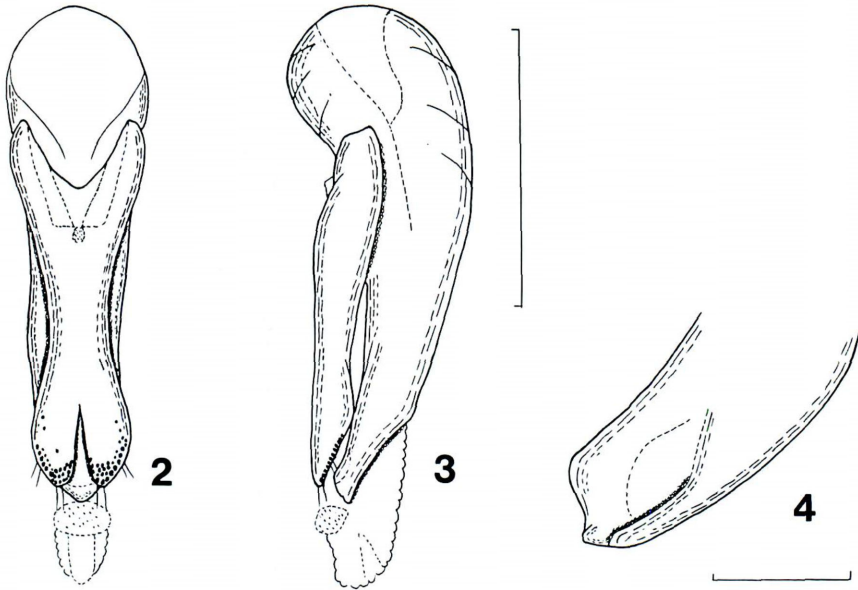


Fig. 1. *Quedius (Microsaurus) masuzoi*  
Y. WATANABE, sp. nov., ♂, from  
Mt. Neng-kao-pei-feng, Nan-t'ou  
Hsien, Taiwan. Scale: 3.0 mm.

lateral marginal part sparsely provided with small setiferous punctures, bearing two long outstanding blackish setae, one at anterior third and the other on each side before posterior margin. Scutellum subtriangular, sparingly with somewhat coarse setiferous punctures on the surface. Elytra square and flat, somewhat transverse (width/length=1.13) and a little narrower than pronotum (elytra/pronotum=0.92); lateral sides almost straight, each provided with two outstanding, conspicuously long blackish setae, one at anterior fourth and the other behind the middle, posterior margin gently emarginate; surface densely, coarsely and shallowly punctured, and densely covered with brownish pubescence.

Abdomen elongate and nearly parallel-sided; basal four visible tergites each shallowly and transversely depressed above in anterior part, and fringed with four long dark brownish setae along posterior margin, though they are sometimes missing; surface of each tergite finely, moderately closely punctured and finely pubescent; last sternite in male shallowly and semicircularly emarginate at the middle of posterior margin, and flattened and glabrous in front of the emargination. Legs relatively long; protarsi widely dilated.



Figs. 2-4. Male genital organ of *Quedius (Microsaurus) masuzoi* Y. WATANABE, sp. nov.; ventral view (2), lateral view (3), and oblique ventral view of the apical part of median lobe (4). Scale: 1.0 mm (for Figs. 2-3), 0.25 mm (for Fig. 4).

Male genital organ sclerotized and trilobed, with basal piece large and globular; median lobe elongate, nearly parallel-sided but abruptly narrowed in apical part towards the tip, which is bluntly pointed as seen from the ventral side; viewed oblique ventrally, apical part of ventral surface subrhomboidally foveolate and shortly carinate at the middle. Style symmetrical, slightly shorter than median lobe, constricted at the middle and narrower than median lobe at that part, but somewhat dilated before the apex and almost as broad as median lobe at that part; apex deeply and narrowly cleft at the middle, forming two lobes close to each other, each lobe fringed with four setae, two apical and two lateral; internal face scattered with numerous sensorial tubercles, which are distributed on latero-apical part of each lobe.

Female unknown.

Holotype: ♂, Mt. Neng-kao-pei-feng, 2,870 m alt., Nan-t'ou Hsien, Taiwan, 21-VI-1989, S.-I. UENO leg. Preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo.

*Distribution.* Taiwan.

*Notes.* The present new species can be easily distinguished from the other members of the group of *Q. (M.) abnormalis* by the following combination of morphological characters: antennae relatively short, with 8th to 10th segments each distinctly transverse; male genital organ with median lobe subrhomboidally foveolate at the apical part of ventral surface, style deeply cleft at the middle of apex and forming two

lobes, each of which is provided with sensorial tubercles on the latero-apical part of ventral surface.

It is worth noting that *Q. masuzoi* is not directly related to the forms occurring in the Island of Kyushu, which is geographically the nearest to Taiwan, but resembles those of central Honshu.

According to Dr. UÉNO, the type specimen was dug out from a loose scree covered with mosses and small plants at the head of a gully on the western slope of Mt. Neng-kao-pei-feng, a peak on the Chung-yang Mountain Range in central Taiwan. The collecting site was near the timber-limit, though still shaded by tall coniferous trees. It can be regarded as an endogean species, not an upper hypogean one, since it was found from near the surface of the scree, beneath a large stone.

This interesting species is named to the memory of the late Professor Masuzo UÉNO, father of Dr. Shun-Ichi UÉNO and a leading entomologist in Japan, who passed away on June 17, 1989, while his son was investigating the high altitude fauna of Taiwan.

#### *Quedius (Microsaurus) sp.*

Body length: 13.0 mm (from front margin of head to anal end).

Only one female specimen collected at a height (now called San-liu-chiu) of Mt. Hsüeh Shan seems to belong to the group of *Q. (M.) abnormalis* and to be related to the preceding new species. It is similar to the latter in facies and coloration, though obviously larger. Members of this species-group are usually very similar to one another in general appearance, and can be identified with confidence only on their male genitalia. The author therefore prefers to withhold its final determination until male specimens are available for study.

*Specimen examined.* 1 ♀, San-liu-chiu on Mt. Hsüeh Shan, 3,500 m alt., T'ai-chung Hsien, Taiwan, 22-VI-1961, S.-I. UÉNO leg.

#### 要 約

渡辺泰明：台湾で得られたツヤムネハネカクシ種群に属する2種。——上野俊一博士（国立科学博物館）のご厚意により、同博士が台湾の高山帯で採集されたツヤムネハネカクシ種群に属する種を検討することができた。その結果、それらを下記のとおり記載および記録した。

1. *Quedius (Microsaurus) masuzoi* Y. WATANABE, sp. nov. マスゾウツヤムネハネカクシ

正基準標本：1♂，台湾南投県能高北峯，21-VI-1989，上野俊一採集。

この種は触角8-10の各節の幅が明らかに長さより広いこと、雄交尾器の中葉腹面の末端域が菱形にえぐられること、癒合した側片の末端域は中央の深い切れ込みによって二片状を呈し、腹面の感覚粒が各片の末端側域に分布していることなどの特徴によって、既知の種から容易に区別することができ、新種と判断された。なお、種名は正基準標本の採集者のご尊父であり、陸水生物学の泰斗として知られる故上野益三博士に献名したものである。



2. *Quedius (Microsaurus)* sp.

検視標本: 1 ♀, 台湾台中県雪山三六九, 22-VI-1961, 上野俊一採集.

本種は明らかにツヤムネハネカクシ種群に属するが, 採集個体が雌1個体のみのため, 命名は雄個体が採集されるまで保留した.

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