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Maruyama, Munetoshi  
The Kyushu University Museum

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## A New Species of the Genus *Merismoderus* (Coleoptera, Carabidae, Paussinae) from Laos, with a Revised Key of the Genus and a New Combination

Munetoshi MARUYAMA

*The Kyushu University Museum, Fukuoka, 812-8581 Japan*

**Abstract.** *Merismoderus yamasakoi* sp. nov. (Paussini, Ceratoderina) is described based on a single specimen from Laos. It is easily distinguished from its congeners by the maculations on the elytra. A new combination, *Merismoderus andrewsi* (Desneux, 1905), which was originally described as a species of *Ceratoderus*, is proposed. A revised key of the genus is provided.

**Keywords:** taxonomy, myrmecophily, Ceratoderini, *Ceratoderus*, Louang Phabang.

### Introduction

Westwood (1847) established “*Melanospilus* subgen. *Merismoderus*” to include a single species *Mer. bensoni* (Westwood, 1847) from India. Poll (1890) described *Mer. hamaticornis* from Sumatera. Reichensperger (1938) added *Mer. borneensis* from Borneo to the genus. Desneux (1905) described *Ceratoderus andrewsi* from India, but it is apparently a member of *Merismoderus*. Consequently, four species are known in *Merismoderus*. I had the opportunity to study an undescribed species of the genus from Laos, courtesy of Mr. Junsuke Yamasako. This paper describes this species with a revised key to the genus.

### *Merismoderus* Westwood, 1847

“*Melanospilus* subgen. *Merismoderus*” Westwood, 1847 (original description); Luna de Carvalho, 1989: 419 (as *Melanospilus*, review, key to species).

**Remarks.** This genus belongs to the subtribe Ceratoderina Darlington, 1950 of the tribe Paussini Latreille, 1807. All the members are believed to be myrmecophilous, like the other members of Paussini, but the symbiotic host, *Paratrechina longicornis* (Latreille), is known only for *Mer. bensoni*. The members of

*Paratrechina* are very common in tropical Asia, and research focusing on *Paratrechina* ants may result in the discovery of the hosts of the other species of *Merismoderus*.

*Merismoderus andrewsi* (Desneux, 1905) comb. nov. was originally described as a member of *Ceratoderus*. It is apparently a member of *Merismoderus* based on the deep, fully trichome-baring, transverse sulcus on the pronotum and a pair of spinule on the anterior edge of the pronotal sulcus.

### Key to the Species of *Merismoderus*

1. Antennal club without spinule ..... 2
- Basal posterior angle of antennal club with a spinule ..... 3
2. Posterior margin of antennal club rather deeply notched between subsegments; elytra black except humeri and apices (S. India, Sri Lanka) ..... *M. andrewsi*
- Posterior margin of antennal club very shallowly notched between subsegments; elytra reddish yellow, with a pair of large black maculation at middle (N. and N.E. India) ..... *M. bensoni*
3. Spinule of antennal club strait, shorter than subsegment I; dorsal surface of elytra sparsely with setae; pygidium without trichome (Laos) ..... *M. yamasakoi*
- Spinule of antennal club curved, longer than

- subsegment I; dorsal surface of elytra densely with setae; pygidium with trichomes ..... 4
4. Body almost uniformly reddish brown (Borneo) ..... *M. borneensis*
- . Body reddish yellow; elytra with a pair of large black maculation at middle (Sumatera) ... *M. hamaticornis*

***Merismoderus yamasakoi* sp. nov.**

*Etymology.* Dedicated to Mr. J. Yamasako who collected the holotype.

*Type material.* Holotype, male, “[Laos] Ban Phou Yang / E. Phu Khun 15 km / Louang Phabang Prov. / 25-27. V. 2007 / J. Yamasako leg” (left hind leg broken; abdomen decayed, genitalia crushed). Deposited in Laboratory of Environmental Entomology, Ehime University.

*Diagnosis.* This species is easily distinguished from the other congeners by having five maculations on the elytra. No close ally could be estimated.

**Description.**

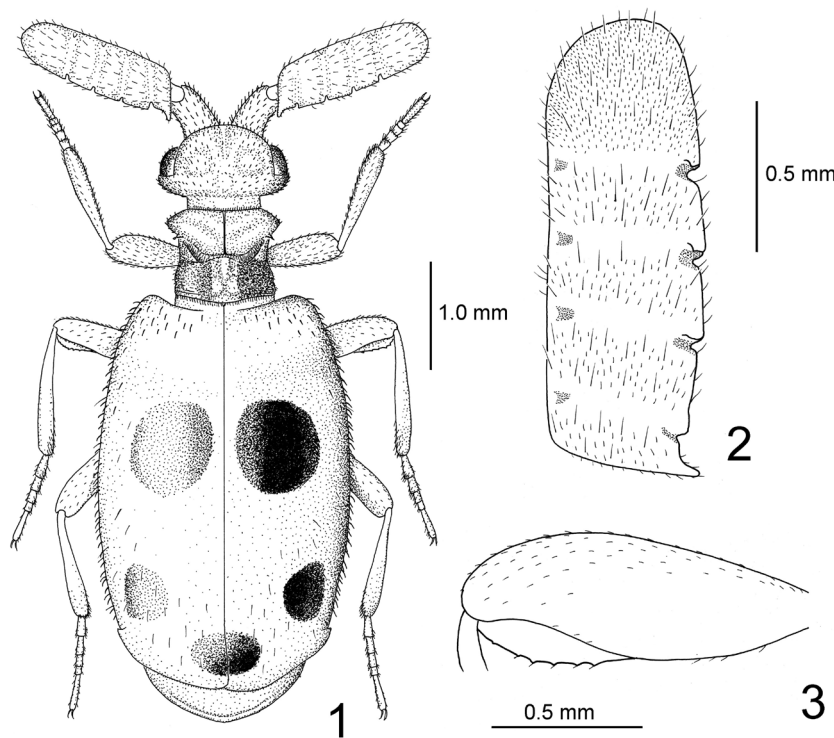
Body (Fig. 1) length 4.89 mm from anterior margin of head to apices of elytra. Body reddish yellow, with posterolateral areas of pronotum and 5 maculations on elytra black.

Head transverse, 1.65 times broader (except neck), with upper margin of clypeus slightly incised in middle; with shallow midline groove from anterior margin to middle; vertex irregularly convex, with a pairs of depressions at middle; temples produced laterally; surface rugose, moderately with short, appressed, scale-like yellow setae; eyes with long erect setae between facets. Antennal club (Fig. 2) flattened; basal posterior angle with a spinule, which is shorter than subsegment I; surface moderately covered with erect long setae and pubescence except apical subsegment densely pubescent.

Pronotum 1.2 times broader, with longitudinal medial groove from anterior margin to sulcus, with 2 pairs of tubercles anterior and posterior areas of sulcus; surface rugose, sparsely with small setae; around posterior margin irregularly with transeverse wrinkles.

Elytra somewhat ovate, shining but anterior 1/4 and around lateral margins coarsely punctured; around suture posterior 1/3 finely punctured; lateral margins from humeri to before elytral notch and posterior 1/4 with thick, suberect setae.

Femora flattened, deeply sulcate to hold tibiae around apices; inner apical margins of femora dentate (Fig. 3); tibiae thick, gently broadened apically, covered with yellow setae around apices.



**Figs. 1-3.** *Merismoderus yamasakoi* sp. nov. (holotype). 1: habitus. 2: Antennal club. 3: left hind femur, dorsal view.

Pygidium finely punctured, sparsely with short appressed setae, margined with rather deep groove.

*Comments.* Only a single specimen (the holotype), which was collected flying along a road, is known.

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