

Some New Passalid Beetles (Coleoptera, Passalidae) from Southeast Asia

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Abstract Four new passalid beetles are described from Southeast Asia. *Aceraius emas* sp. nov. from Borneo is closely allied to *Ophrygonius uedai* KON et JOHKI; *Aceraius jeni* sp. nov. from Borneo is characterized in the curious tarsi as in *A. laniger* ZANG, and is different from the allied species by the straight anterior border of labrum; *Aceraius riekoae* sp. nov. is characterized in the combination of the curious shape of tarsi and the prominent anterior angles of head; *Aceraius sipolae* sp. nov. from Sipola Is., Mentawai Is. near Sumatra resembles *A. laevicollis* ILLIGER, but the ninth rib of elytra is almost naked in the new species.

In this paper, I will describe four new passalid beetles belonging to the genus *Aceraius* (sensu lato) from Southeast Asia. Though *Aceraius emas* sp. nov. is described as a member of the genus *Aceraius*, the generic definition of *Aceraius* is different according to authors, and *Aceraius emas* sp. nov. may belong to the genus *Ophrygonius* in the sense of BOUCHER (1993 b) or KON, ARAYA and JOHKI (1993 a).

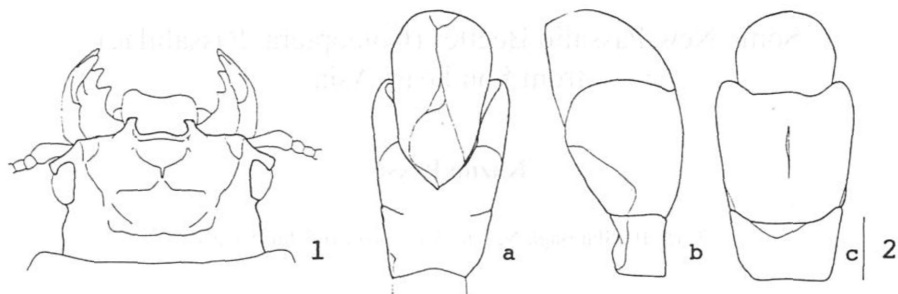
Aceraius emas sp. nov.

(Figs. 1–3)

Almost black, with ventral surface more or less reddish, shining; slightly convex.

Head nearly symmetrical, but the left outer tubercle is slightly larger than the right one; anterior angle not prominent, obtusely angulate; outer tubercle internally produced, slightly convex near base of external border, truncate at apex, with a minute denticle at the middle of anterior margin; inner tubercle rather large, trigonally pyramidal, produced upward; ridge between the two inner tubercles fine, sharp, slightly and arcuately protrudent in dorsal view; frontal ridge arcuate, accompanied with a groove anteriorly, extending to base of inner tubercle; parietal ridge sharp, central tubercle moderately high; supraoccipital ridge extending to behind supraorbital one, not distinctly joining the latter; frontal area semicircular, indistinctly rugose; depressed area almost smooth behind outer tubercles, but with a few hairs, rather densely hairy before and behind parietal ridge.

Antenna with three short and three long lamellae, fourth lamella twice as long as third one; first lamella scanty of pubescence. Labrum with anterior border slightly



Figs. 1–2. *Aceraius emas* sp. nov.; 1, head; 2, male genitalia: a, dorsal view, b, lateral view, c, ventral view (scale: 0.5 mm).

emarginate. Right mandible: lowest terminal tooth large, anterior lower tooth triangular, sharp and smaller than lowest terminal one. Left mandible: anterior lower tooth as large as lowest terminal one, simple; upper tooth moderately raised, rectangular and sharp at anterior tip, horizontal behind it. Eye moderately large, laterally protrudent as great as eye canthus. Mentum without scar; middle part almost smooth, widely depressed in anterior margin, posterior wall of the depression sinuate; lateral pieces rather densely covered with hair-bearing punctures.

Pronotum sparsely hairy in and along lateral grooves, rather densely hairy around scars, median groove vestigial.

Elytra hairy in front of shoulders, grooves fine.

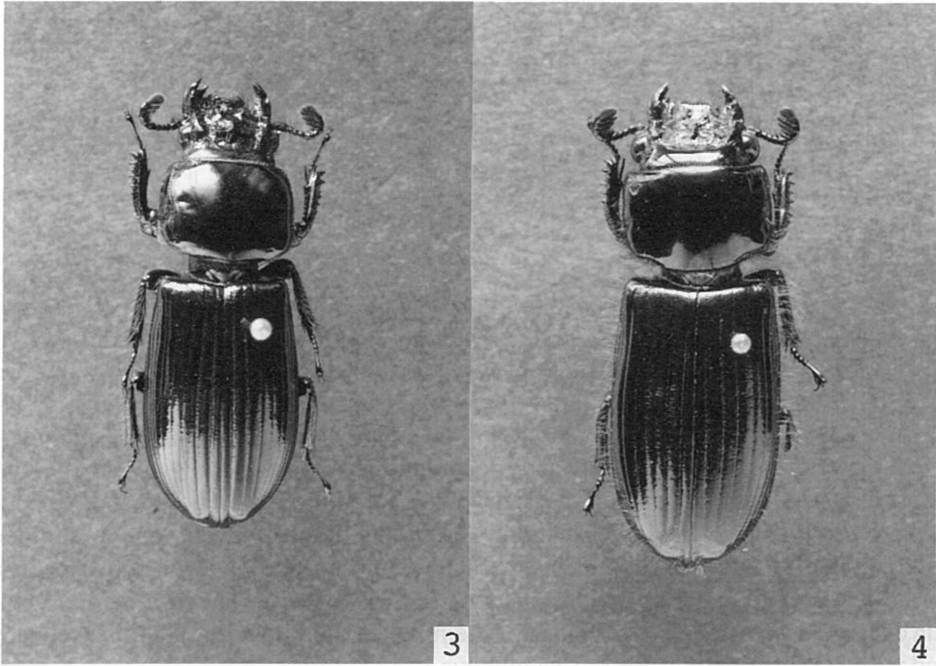
Posterior plate of prosternum transversely rugose, shining and sparsely hairy. Mesosternum coriaceous at middle and along lateral borders; scar not sharply defined, narrow and shallow, gradually widened posteriad. Central area of metasternum almost polished, with some hairs between mesocoxae; anterior intermediate and lateral areas densely hairy, posterior intermediate area hairy along posterior border; lateral area rather abruptly widened posteriad, not sharply defined from intermediate area. Second abdominal sternite hairy throughout, third to sixth ones hairy at sides. Tarsi simple, flat in apical faces, neither concave nor convex.

Male genitalia as shown in Fig. 2.

Body length: 32.0 mm.

Holotype: ♂, 16~27-IV-1993, Gunung Emas, Crocker Mountains, Sabah, Malaysia, leg. JENIS. The holotype is in the collection of the Naturhistorisches Museum Wien.

This new species is closely allied to *Ophrygonius uedai* KON et JOHKI, but is different from the latter in the following points: outer tubercles are smaller; the ridge between inner tubercles is less strongly protrudent anteriorly.



Figs. 3-4. *Aceraius* spp., dorsal aspect. — 3, *A. emas* sp. nov.; 4, *A. jeni* sp. nov.

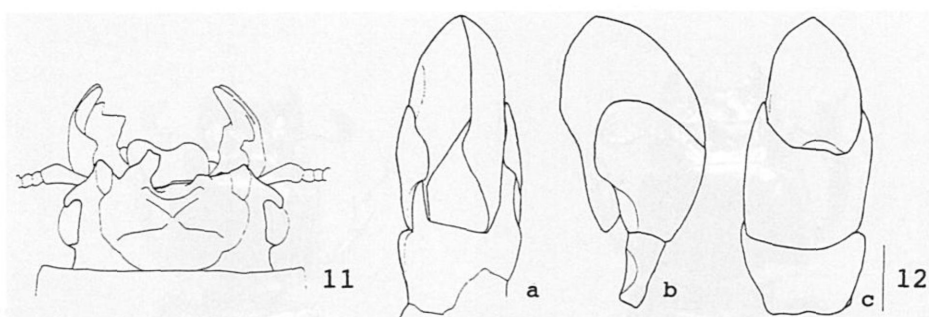
Aceraius jeni sp. nov.

(Figs. 4-6)

Black and shining; moderately convex.

Head asymmetrical; anterior angle not prominent, obtusely angulate; left outer tubercle larger than right one, internally produced, distinctly emarginate at external border, with apical portion weakly bifid, external angle weakly produced anteriorly; right outer tubercle obliquely truncate; inner tubercle rather large, produced upward; ridge between the two inner tubercles fine, straight in dorsal view, horizontal in frontal view; frontal ridge arcuate, but almost straight at the middle, accompanied with a groove anteriorly, extending to base of inner tubercle; parietal ridge sharp and almost straight; supraoccipital ridge connecting with supraorbital one; frontal area triangular, finely rugose; depressed area almost smooth, with several hairs near outer tubercles, rather densely hairy before and behind parietal ridge; the oblique area between outer tubercles with several hairs.

Antenna with three short and three moderate long lamellae; fourth segment lamellate, but lacking pubescence; seventh one (third lamella) 1.5 times as long as sixth one in lamellate part. Labrum with anterior border slightly emarginate. Right mandible: lowest terminal tooth small and triangular, visible in dorsal view; lower den-



Figs. 11–12. *Aceraius sipolae* sp. nov.; 11, head; 12, male genitalia: a, dorsal view, b, lateral view, c, ventral view (scale: 0.5 mm).

Body length: 32.5 mm.

Holotype: ♂, Sipola Island, Mentawai Isls., Indonesia, V–1993. The holotype will be preserved in the National Science Museum (Nat. Hist.), Tokyo.

This new species is characterized by the prominent anterior angles of head, and is distinguished from *A. laevicollis* (ILLIGER) and *A. moeschleri* KUWERT by the virtually naked seventh to ninth ribs of elytra.

Acknowledgement

I wish to thank Dr. S.-I. UÉNO, the National Science Museum (Nat. Hist.), Tokyo, for reviewing the manuscript. My thanks also goes to Dr. H. SCHILLHAMMER, the Naturhistorisches Museum Wien for permission to examine and describe materials of Passalidae, to Mr. M. FUJIOKA and Ms. R. MURAMOTO, Tokyo for their various help in my study.

要 約

岩瀬一男：東南アジア産クロツヤムシの数新種。—— 東南アジア産の4種のクロツヤムシの新種を記載した。*Aceraius emas* sp. nov. はボルネオ産で、*Ophrygonius uedai* KON et JOHKI によく似ている。*Aceraius jenisi* sp. nov. はボルネオ産で、付節先端が凹む種類の最小の種になる。*Aceraius riekoae* sp. nov. はボルネオ産で、付節先端が凹むうえに、頭部の前角が突出する特徴をもつ。*Aceraius sipolae* sp. nov. はスマトラに近いメンタワイ諸島のシボラ島産で、*A. laevicollis* ILLIGER に似ているが、上翅の毛が少ない。

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The Staphylinid Beetles Newly Recorded from the Island of Okinoerabu-jima in the Ryukyus

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So far as known to me, five species of staphylinid beetles have been recorded by NAOMI (1987, 1996, 1997) and ITO (1995) from the Island of Okinoerabu-jima in the Ryukyus. Through the courtesy of Dr. M. NISHIKAWA and Dr. H. ÔHIRA, some staphylinid beetles obtained on the Island of Okinoerabu-jima are given to me. The collections contain five species, all of which are new to the fauna of the island, as recorded below. I thank Dr. M. NISHIKAWA and Dr. H. ÔHIRA for their kindness in providing me with the specimens.

1. *Lobrathium ryukyuense* ITO
2 ♂♂, 1 ♀, Okinoerabu-jima, 2~5-V-1997, H. ÔHIRA leg.
2. *Philonthus aeneipennis* BOHEMAN
1 ♂, China, Okinoerabu-jima, 27-VI-1964, M. NISHIKAWA leg.; 1 ♀, Okinoerabu-jima, 2~5-V-1997, H. ÔHIRA leg.
3. *Philonthus amicus* SHARP
1 ♀, Tamiya, Okinoerabu-jima, 2-VII-1964, M. NISHIKAWA leg.; 4 ♂♂, 1 ♀, Okinoerabu-jima, 2~5-V-1997, H. ÔHIRA leg.
4. *Philonthus discoideus* GRAVENHORST
1 ♀, Tamiya, Okinoerabu-jima, 2-VII-1964, M. NISHIKAWA leg.; 1 ♂, 1 ♀, Okinoerabu-jima, 2~5-V-1997, H. ÔHIRA leg.
5. *Phucobius densipennis* BERNHAUER
1 ♂, Okinoerabu-jima, 2~5-V-1997, H. ÔHIRA leg.

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Further Notes on the Microhabitat of *Taeniocerus pygmaeus*
(Coleoptera, Passalidae)¹⁾

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Abstract Three observations on the biology of the passalid beetle, *Taeniocerus pygmaeus*, were made in the Malay Peninsula and Borneo, and it was confirmed that *T. pygmaeus* was specialized to utilize the microhabitats produced by termite activities.

All the species of the genus *Taeniocerus* (Coleoptera, Passalidae), *T. bicanthatus* (PERCHERON), *T. bicuspis* KAUP, *T. platypus* KAUP and *T. pygmaeus* KAUP, have markedly wide front tibiae, which are supposed to be related to living in detritus-like microhabitats (JOHKI & KON, 1987). Of these, *T. bicanthatus* and *T. platypus* have been known to live in the detritus-like microhabitats, the interface between fallen trees and the ground (KON & JOHKI, 1987; KON & ARAYA, 1992).

In the previous report (KON *et al.*, 1996), we suggested that the microhabitat of *Taeniocerus pygmaeus* may be associated with termite colonies. Thereafter, we had opportunities to make additional observations on the biology of this species in relation to termites, and herewith report them briefly.

On 22 Mar. 1996, at Kota Tinggi, located in the southern part of the Malay Peninsula, one female of *T. pygmaeus* was collected from the surface of decayed log of the rubber tree, *Hevea brasiliensis*, which was colonized by the termite, *Coptotermes* sp.

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(Isoptera, Rhinotermitidae). When this log with the termite colony was once examined in the daytime several hours before the discovery of the female of *T. pygmaeus* in the evening, nothing was found. Therefore, this female appeared to be attracted to the log with the termite nest in that evening.

On 28 Aug. 1996, at Sepilok near Sandakan, Sabah in Borneo, one colony of *T. pygmaeus* was collected from a decayed log. This colony consisted of 2 carcasses of black adults, 4 teneral adults (1 ♂, 3 ♀♀) and 4 pupae in cocoons. The gallery was excavated into the clay-like rotten wood substance around an abandoned termite nest. Although the termite nest had already been abandoned and secondarily invaded by ants, it was supposed that the nest was made by *Coptotermes* sp. or some other termite species having similar habit since general features of the nest and its circumstances were very similar to those observed in the former case in Kota Tinggi.

On 30 Mar. 1997, at Templer's Park near Kuala Lumpur, in the Malay Peninsula, one male of this species was collected from the same kind of microhabitat as reported for the former case in Sepilok.

These observations, together with the previous ones (KON *et al.*, 1996), support the hypothesis that *T. pygmaeus* is "termitariophilous" in the sense of IWATA *et al.* (1992); i.e., specialized to utilize the microhabitats produced by termite activities.

Interestingly, in all the three cases, a number of adults and larvae of the Ceratocanthidae (Coleoptera, Scarabaeoidea) were found together with *T. pygmaeus*. Up to the present, various species belonging to the superfamily Scarabaeoidea have been reported to be likely termitophilous and/or termitariophilous (BOUCOMONT, 1936; RITCHER, 1958; HOWDEN, 1973; HOWDEN & GILL, 1988; BARTOLOZZI, 1989; IWATA *et al.*, 1992; ARAYA, 1994; OCHI, 1996, etc.). It is expected that much more species of the Scarabaeoidea will be revealed to be associated with termites by close examinations of termite nests and their surroundings, especially in the lowlands of the tropical and sub-tropical regions.

We express our hearty thanks to Dr. R. IWATA, Nihon University, for generic identification of termites, and to Mr. H. ASHIDA, Kyoto University, for warm companionship during the field studies.

要 約

常喜 豊・荒谷邦雄・近 雅博：*Taeniocerus pygmaeus* (クロツヤムシ科) の微小生息場所に関する知見 (続報)。—— *Taeniocerus pygmaeus* の営巣が、倒木中のシロアリのコロニー周辺でなされるらしいことを、前報 (KON *et al.*, 1996) で述べた。その後、ボルネオ島サンダカン郊外のセピロクの森において、倒木中につくられたシロアリのコロニー周辺のデトリタス状物質中に、*T. pygmaeus* のコロニーを確認したほか、マレーシアのコタティンギおよびテンブラー公園においても、本種とシロアリの関係の強さを示唆する観察を行うことができた。これらのことより、本種は、シロアリの活動で生じたデトリタス状の木屑中で生活するように特化した種であると考えられる。

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