

Notes on the Genus *Ceracupes* (Coleoptera, Passalidae) from
Vietnam, with a New Record of *C. arrowi* HELLER

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Abstract *Ceracupes arrowi* HELLER is recorded from Vietnam for the first time and its microhabitat is discussed. A key to the Vietnamese species of *Ceracupes* KAUP and explanatory photographs are also provided.

Up to the present, two species of the genus *Ceracupes* KAUP (Coleoptera, Passalidae), *C. fronticornis* (WESTWOOD) and *C. chingkini* OKANO, have been recorded from Vietnam (HINCKS & DIBB, 1935; KON & JOHKI, 1995). When we examined a series of specimens of Passalidae from Mt. Tamdao, Vietnam, we found one male specimen of *C. arrowi* HELLER among them. This is the first record of this species from Vietnam.

We briefly describe the male of *Ceracupes arrowi* from Vietnam and discuss on its microhabitat. In addition, we provide explanatory photographs and a key to the Vietnamese species of *Ceracupes*.

***Ceracupes arrowi* HELLER**

(Figs. 1, 4)

Ceracupes arrowi HELLER, 1911, Annl. Soc. ent. Berg., **55**, p. 256.

Brief description of the male specimen from Vietnam. Body length: 25.0 mm (from tip of central tubercle to tip of elytron). Upper tooth of mandible distinctly

longer than central tubercle in dorsal view. Central tubercle with bifid apex, which is not so divergent distally; ventral surface of central tubercle concave even in anterior portion close to apex; lower margin of central tubercle without distinct tubercle near base in lateral view. Anterior intermediate and lateral areas of metasternum punctured and hairy.

Penis rounded, sclerotized and finely rugose on ventral side, less sclerotized on dorsal side, with orifice at the center of dorsal side. Tegmen consisting of one piece, with lateral margin concave in ventral view.

Specimens examined. 1♂, Mt. Tamdao, Vietnam, 9-I-1992; 1♂, 2♀♀, Parin, Taiwan, 13-VI; 2♂♂, 2♀♀, Nanshansi, Taiwan, 23-VIII-1986, M. KON & Y. JOHKE leg.

Distribution. Taiwan, Vietnam (new record).

Notes. No noticeable difference is found between the specimens from Taiwan and Vietnam in the external morphology and male genitalia.

Ceracupes fronticornis (WESTWOOD)

(Figs. 2, 5)

Passalus fronticornis WESTWOOD, 1842, Ann. Mag. nat. Hist., 8, p. 124.

Specimens examined. 1♂, Mt. Tamdao (800–1,000 m), Vietnam, 2-IX-1990; 2♂♂, 2♀♀, ditto, VII-1992.

Distribution. Eastern Himalayas, Myanmar, Thailand, Vietnam.

Ceracupes chingkini OKANO

(Figs. 3, 6)

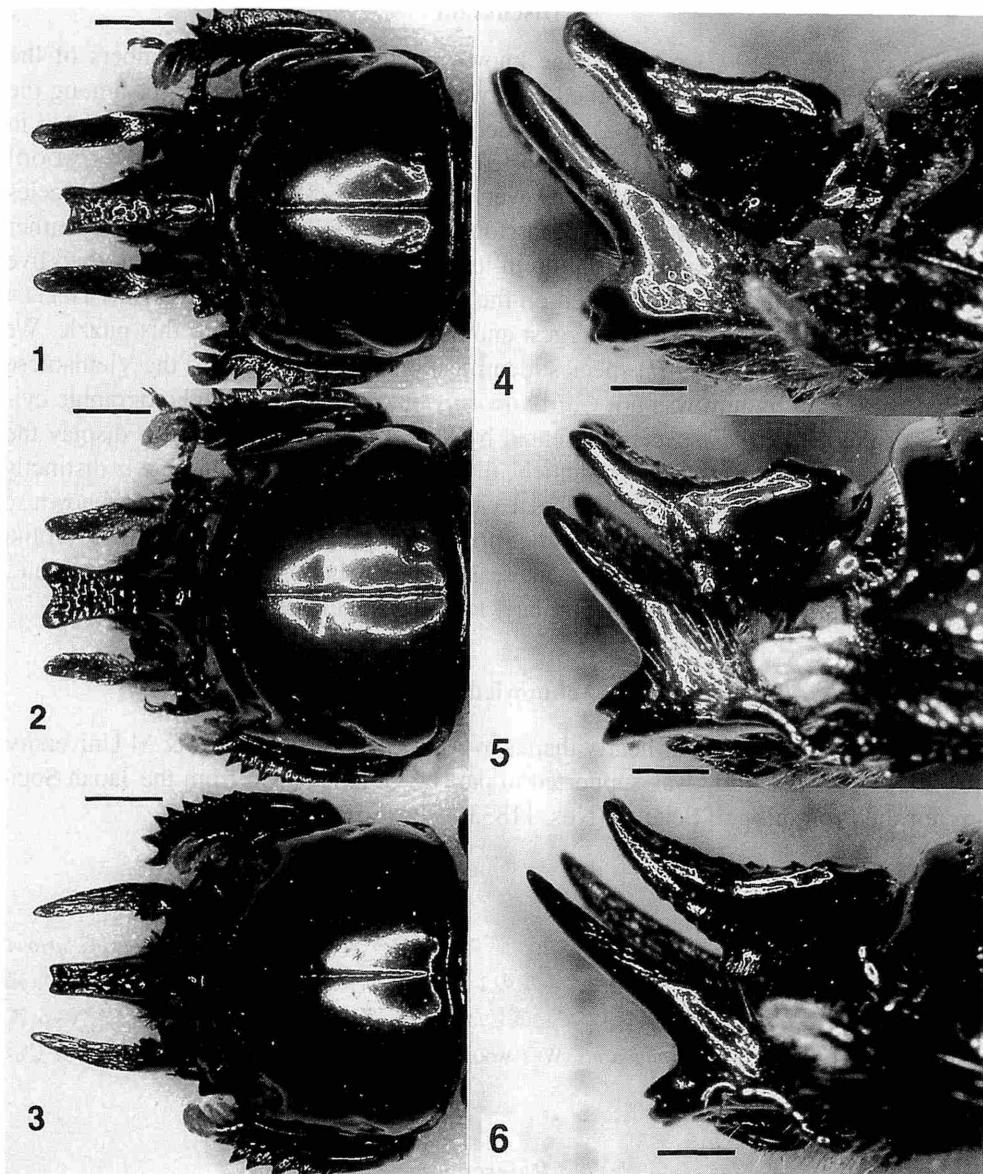
Ceracupes chingkini OKANO, 1988, Entomo Shirogane, (1), p. 2.

Specimen examined. 1♀, Mt. Tamdao, Vietnam, 7-V-1992.

Distribution. Myanmar, Thailand, Vietnam, China (Guangxi), Taiwan.

Key to the Vietnamese Species of *Ceracupes*

1. Anterior intermediate and lateral areas of metasternum impunctate and hairless, body length 26.1 mm *C. chingkini* OKANO.
- Anterior intermediate and lateral areas of metasternum punctured and hairy 2.
2. Upper tooth of mandible almost as long as central tubercle in dorsal view, body length 22.1–27.3 mm *C. fronticornis* (WESTWOOD).
- Upper tooth of mandible distinctly longer than central tubercle in dorsal view, body length 25.0 mm *C. arrowi* HELLER.



Figs. 1-6. — 1-3. Head and pronotum of *Ceracupes* spp. from Vietnam in dorsal view, scale 2 mm; 1, *C. arrowi* HELLER; 2, *C. fronticornis* (WESTWOOD); 3, *C. chingkini* OKANO. — 4-6. Head of *Ceracupes* spp. from Vietnam in left lateral view, scale 1 mm; 4, *C. arrowi* HELLER; 5, *C. fronticornis* (WESTWOOD); 6, *C. chingkini* OKANO.

Discussion

ARAYA *et al.* (1997) reviewed the known microhabitats of the members of the genus *Ceracupes*, which are classified into two types, i.e., 1) in the detritus among the rhizomes of epiphytic ferns and 2) in the detritus-like wood substance accumulated in tree trunks or logs. KABAKOV (1967) reported that *Ceracupes fronticornis* (WESTWOOD) lives in epiphytic ferns in Vietnam. However, ARAYA *et al.* (1997) collected this species from the detritus accumulated in a dead stump in Thailand, and suggested that either *C. fronticornis* has geographic variation in its microhabitats, or it is facultative to live in both types of microhabitats. Based on the present new record of *C. arrowi* HELLER from Vietnam, we would like to suggest another potential solution to this puzzle. We suspect that KABAKOV's (1967) species identification was incorrect and the Vietnamese species observed by him was not *C. fronticornis* but *C. arrowi*. The photographic evidence of the *Ceracupes* species presented by KABAKOV (1967) appears to display the diagnostic character of *C. arrowi*; namely, the upper tooth of the mandible is distinctly longer than the central tubercle in dorsal view. *Ceracupes arrowi* has been known to live in colonies in the detritus among the rhizomes of epiphytic ferns in Taiwan (JOHKI & KON, 1987, 1989). Therefore, it seems reasonable to suppose that the Vietnamese *C. arrowi* may inhabit a microhabitat similarly to its Taiwanese counterpart.

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要 約

近 雅博・荒谷邦雄・常喜 豊：ベトナムのミツノクロツヤムシ属 *Ceracupes*, *C. arrowi* HELLERの新記録。—— ミツノクロツヤムシの1種 *Ceracupes arrowi* HELLER をベトナムから初めて記録し、その微小生息場所について論議した。また、ベトナム産のミツノクロツヤムシ属の3種、*C. arrowi* HELLER, *C. fronticornis* (WESTWOOD), *C. chingkini* OKANOの頭部の特徴を写真で示し、検索表を作成した。

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A New Record of *Leptaulax sarawakus* IWASE (Coleoptera, Passalidae) from Mt. Trusnadi, Sabah, Borneo, with Reference to Sexual Dimorphism

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Leptaulax sarawakus was described by IWASE (1996) from Mt. Serapi, Sarawak, Borneo. Recently, one of the authors (KASHIZAKI) collected some specimens of *L. sarawakus* from Mt. Trusnadi, Sabah, Borneo. This is the first record of this species from the other locality than the type locality.

***Leptaulax sarawakus* IWASE**

Leptaulax sarawakus IWASE, 1996, *Jpn. J. syst. Ent.*, **2**, p. 227.

Specimens examined. 1 ♂ (holotype), Mt. Serapi, Sarawak, Borneo, IX–X 1989; 1 ♀ (paratype), ditto; 2 ♂♂, 2 ♀♀, Mt. Trusnadi, Sabah, Borneo, 6–II–2000, A. KASHIZAKI leg.

Notes. The specimens from Mt. Trusnadi differ a little from the type series by exhibiting sexual dimorphism as follows: in the specimens from Mt. Trusnadi, the sixth visible abdominal sternite is almost hairless in males and densely hairy at the middle in females, whereas it is densely hairy in both the holotype (male) and the female paratype from Mt. Serapi, Sarawak. In addition, there is a slight difference in females: sixth visible abdominal sternite entirely punctate in the females from Mt. Trusnadi, Sabah, whereas impunctate at the posterior middle in the female paratype.