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New Records of *Laosaphaenops deharvengi* (Coleoptera, Trechinae), with Notes on Some Character States of Taxonomic Importance

Shun-Ichi UÉNO

Department of Zoology, National Science Museum (Nat. Hist.),
3–23–1 Hyakunin-chô, Shinjuku, Tokyo, 169–0073 Japan

Abstract *Laosaphaenops deharvengi* DEUVE, an extraordinary trechine beetle from Laotian caves, is reexamined on the basis of freshly collected specimens. Its original description is emended of the pubescence and dorsal setae on the elytra and of the protarsomeres in the male, morphometric data are given, and two new localities are recorded.

Laosaphaenops deharvengi DEUVE (2000, p. 38, figs. 1, 3–4) is an extraordinary aphaenopsoid trechine beetle recently discovered in several limestone caves in Central Laos. It was carefully described and illustrated by the original author, together with a new cave paussid (p. 41). Having examined freshly collected specimens, however, I came to realize that some emendations should be needed for its original account.

In this brief paper, I am going to record two new localities of the trechine beetle, to make some comments on several character states of taxonomic importance, and to give morphometric data of the newly obtained specimens. The abbreviations used herein are the same as those explained in previous papers of mine.

Before going further, I wish to express my deep appreciation to Dr. Louis DEHARVENG and Ms. Anne BEDOS for providing detailed information about the caves of the Vang Viang area, to Dr. Kimio MASUMOTO, Dr. Yupa HANBOONSONG and Mr. Mongkhon PRAIKHIAW for arranging our field survey, and to Dr. Masataka SATÔ, Dr. Toshio KISHIMOTO and Dr. Hiroyuki YOSHITOMI for collaboration in cave explorations and/or supplying me with the material used in this study.

Laosaphaenops deharvengi DEUVE, 2000

(Fig. 1)

Laosaphaenops deharvengi DEUVE, 2000, Revue fr. Ent., (N.S.), **22**, p. 38, figs. 1, 3–4; type locality: grotte de Tham None.

Length: 6.95–7.80 mm (from apical margin of clypeus to apices of elytra); 7.65–8.65 mm (including mandibles).

This species was so carefully described and illustrated by the original author that no redescription seems needed. It is, however, necessary to emend certain lines of the

original account, particularly regarding the condition of the pubescence and dorsal setae on the elytra and the conformation of the protarsomeres in the male.

Elytra densely covered with very minute pubescence except for sutural and prehumeral areas; sites of intervals 3–6 each with a very irregular row of three to twelve setiferous dorsal pores, which are usually fewer in number on both inner and outer parts than in medial rows. In ♂, two proximal protarsomeres only slightly dilated, but minutely and sharply denticulate at the apices and furnished beneath with adhesive appendages.

Antennae long and slender though rather variable in length, sometimes reaching the apices of elytra but sometimes barely apical fifth even in ♂. Standard ratios of body parts in three, fully mature specimens (2♂♂, 1♀) are as follows: HL/HW 1.58–1.64 (M 1.62), PL/HL 1.49–1.54 (M 1.51), PW/HW 1.33–1.39 (M 1.37), PL/PW 1.71–1.84 (M 1.79), PNW/HW 0.99–1.00 (M 0.99), PL/PNW 2.38–2.53 (M 2.45), PNW/PA 1.43–1.45 (M 1.44), PNW/PB 1.24–1.32 (M 1.29), PB/PA 1.09–1.17 (M 1.12), EW/PW 1.88–1.98 (M 1.94), EL/PL 1.82–1.91 (M 1.87), EL/EW 1.71–1.75 (M 1.73).

Specimens examined. 2♀♀ (1 mature and 1 very teneral specimens), Tham None, 29–I–2002, S. UÉNO leg.; 1♂, Tham Pha Leusi, 30–I–2002, T. KISHIMOTO leg.; 1♂ (very teneral), Tham Khonh, 8–V–2002, H. YOSHITOMI leg.; 1♂, Tham Hoi, 31–I–2002, S. UÉNO & T. KISHIMOTO leg. All in NSMT.

Localities. Tham None, 230 m alt., Tham Pha Leusi, 230 m alt., Tham Khonh, 240 m alt., and Tham Hoi (at Ban Tham Xang), 270 m alt., all in Vang Viang of Vientiane Prov., Central Laos.

Notes. As was pointed out by DEUVE himself, the most unusual character state exhibited by *Laosaphaenops deharvengi* is the presence of "assez longues soies éparses" on the elytral disc. These hairs were regarded by him as "une pubescence", but actually, they are the dorsal setae usually restricted, in the Trechinae, to the third or the third and fifth striae. This is clearly understood from the fact that the elytral surface of *Laosaphaenops* is densely covered with minute pubescence for the most part and that the long hairs arise from distinct pores arranged in longitudinal rows, even though the rows are disordered here and there. Because of the dark coloration of the elytra, the same coloured pubescence is rather difficult to detect, but can be clearly observed in oblique lateral view with lightened back.

A similarly irregular multiplication of elytral dorsal pores are known in *Tienmutrechus dispersipunctis* SUENSON (1957, p. 91, pl. 1 lower right; JEANNEL, 1962, p. 190, figs. 15–16; UÉNO, 1976, p. 126, figs. 1–3) from Mt. Si Tien-mu Shan (=Xitianmu Shan) in Chekiang (=Zhejiang). After my 1976 redescription, I had an opportunity to visit the type locality and to collect a series of additional specimens of this extraordinary species, and confirmed that the unusually multiplied condition of the elytral dorsal pores (cf. UÉNO, 1976, fig. 1 on p. 125) is really characteristic of *Tienmutrechus*. What is different between *Tienmutrechus* and *Laosaphaenops* is that the elytral striae and strioles are entire in the former and totally effaced in the latter, so that the arrangement of setiferous dorsal pores can be recognized much more clearly in the

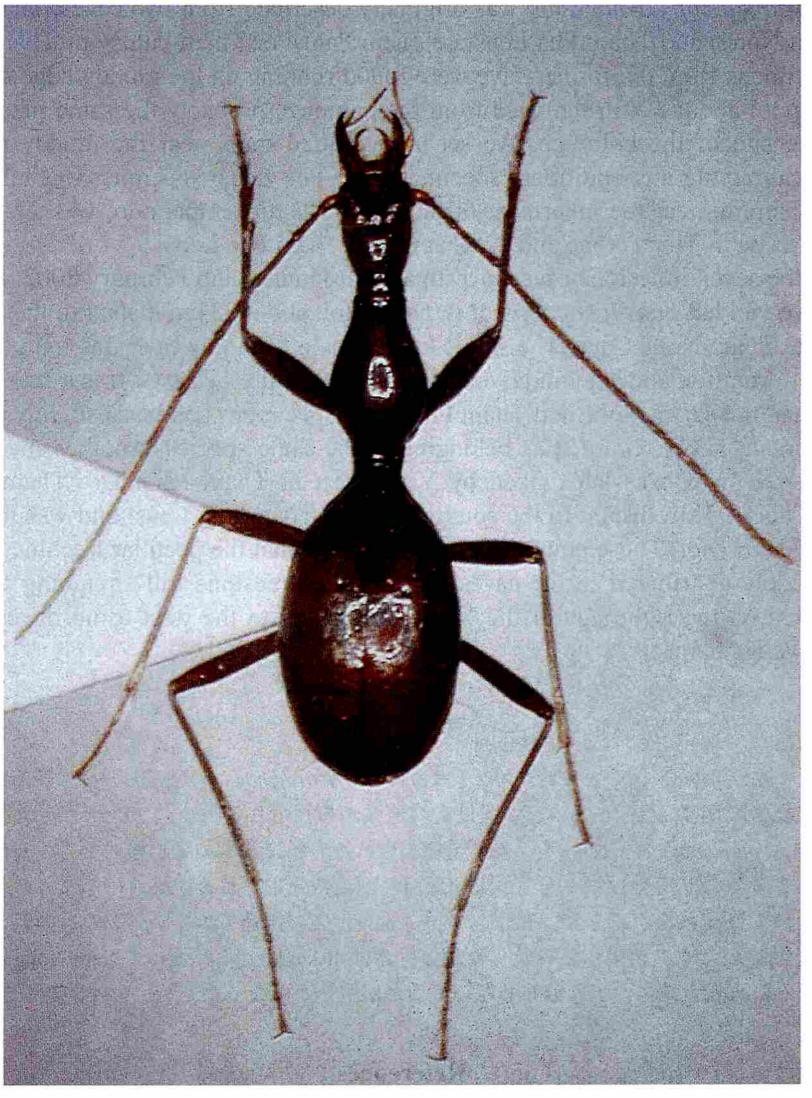

Fig. 1. *Laosaphaenops deharvengi* DEUVE, ♀, from Tham None Cave at Vang Viang, Central Laos.

former than in the latter.

The proximal protarsomeres in the male of *Laosaphaenops* were originally described "indifférenciés", but actually, they are slightly dilated and provided at the apices with small denticles directed apicad. If the tarsal segments are pressed together, however, they may look similar to those of the female. Such a retrogression of protarsal modification is rather frequently found in the Chinese species of ultra-evolved trechines, and comes to the utmost in *Laosaphaenops*.

Laosaphaenops deharvengi was originally described from two caves, Tham None (or Tham Nône) and Tham Pha Leusi (=Tham Palusi or Tham Palusy or Tham Lusy). Our specimens from the former cave were found running on the muddy edge of a long shallow pool about 500 m removed from the entrance, probably the same place as the collecting site of the holotype. We set many baited traps near the muddy pool but failed in attracting any additional specimen. Our Pha Leusi specimen was taken on a large stalagmite near the innermost of the cave. The air temperature was 21°C at the collecting site in Tham None and 22°C at that in Tham Pha Leusi.

Of the seven limestone caves investigated in January and February 2002, only one more cave yielded *Laosaphaenops*. It is Tham Hoi, about 23 km distant to the north by west from Tham None Cave. The single known male from this cave was found running on a rim formation above a muddy basin at a temperature of 22°C. It is a little smaller in size than the Tham None and Tham Pha Leusi specimens and has a slightly different genital organ, but is regarded as belonging to the same species. Another specimen, a very teneral male, was later taken by YOSHITOMI in Tham Khonh (=Tham Khon), which is about 5 km distant to the southwest from Tham Pha Leusi and was identified with *L. deharvengi*. These new collecting data show that the peculiar trechine beetle is rather widely distributed in the caves lying in the limestone hill stretching for more than 40 km on the right side of the Nam Xong River to the west to northwest of the town of Vang Viang.

要　　約

上野俊一：ラオス産のアシナガメクラチビゴミムシ*Laosaphaenops deharvengi*の新産地と若干の重要な標徴に関する訂正．—— 中国以南の地域から知られる唯一のアシナガメクラチビゴミムシ*Laosaphaenops deharvengi*を，新しく採集された資料に基づいて再検討し，みっつの重要な属徴，すなわち上翅をおおう細毛，上翅背面の剛毛の分布，および雄前付節にみられる二次性徴について原記載を訂正した．また，Vang Viang地区の洞窟2カ所を，この種の新しい産地として記録した．その結果，この特異な種は，南北40 km以上にわたってNam Xong川の右岸に発達する石灰岩台地に，広く分布していることが明らかになった．

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