

## A New Species of *Acanthocis* MIYATAKE (Coleoptera, Ciidae) from Laos

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**Abstract** A new species of the genus *Acanthocis* MIYATAKE, 1955 (Coleoptera, Ciidae), *Acanthocis laoensis* sp. nov., is described based on specimens collected in northern Laos. This species can be separated from other *Acanthocis* species based on a combination of the following characters: relatively short dorsal bristles and pronotal projection, presence of abdominal sex patch in male, and form of male genitalia. Photographs of the new species and male genitalia are provided.

### Introduction

*Acanthocis* MIYATAKE, 1955 is a genus of Ciidae (Coleoptera, Tenebrionoidea) currently including three species: *Acanthocis inonoti* MIYATAKE, 1955 (replacement name for *Cis (Acanthocis) bisetosus* MIYATAKE, 1954), *A. quadridentatus* NOBUCHI et WADA, 1959 and *A. armiger* (BLAIR, 1940). The former two species have been recorded from Japan (KAWANABE, 1995; MIYATAKE, 1954), while *A. armiger* has been recorded from Australia (LAWRENCE, 2016). Although some undescribed species were collected in Thailand and Malaysia (LAWRENCE, 2016), no species of *Acanthocis* have been described from Southeast Asia. In the present paper, I describe a new species of the genus from northern Laos.

### Material and Methods

The beetles were collected from basidiomes of the polypore fungus *Cryptoporus volvatus*. The holotype and paratypes of the new species described herein are deposited in the Ehime University Museum, Matsuyama, Japan (EUMJ).

Morphological characters of the type specimens were examined under a stereomicroscope (Olympus SZX10). The male holotype was dissected and the genitalia was mounted in a small drop of Euparal as described by MARUYAMA (2004) after digestion in proteinase K solution (2 mg/mL) at 55°C for 24h. Pinned specimens and mounted genitalia were photographed and measured by using a VW-9000 microscope (Keyence, Itasca, IL, USA) with a VW-600C camera and VH-Z 100R zoom lens.

Terminology used in this study follow those of LAWRENCE and LOPES-ANDRADE (2010) and LAWRENCE (2016). Morphological measurements were abbreviated as follows: PL — length of pronotum at midline; PW — greatest width of pronotum; EL — length of elytra from the anterior edge of the scutellar shield to elytral apex; EW — greatest combined width of elytra; TL = PL + EL. Range, mean and standard deviations (in mm) are provided with the description below.

Verbatim label data indicated by quotation marks are provided for the type specimens. Label breaks are indicated by a slash (“/”).

## Taxonomy

### *Acanthocis laoensis* sp. nov.

<http://zoobank.org/B59D2E0A-A646-47A3-8389-03D236D33D8E>

(Figs. 1 & 2)

*Type series.* Holotype (EUMJ): male, “[LA28] Phou Samsoum, Xieng / Khouang Prov., Laos N19.092638 / E103.435308, ca 1774m, 25. IV. / 2018, H. Yoshitomi leg.”. Paratypes (EUMJ): 1 male and 14 females, same data as the holotype; 1 male and 2 females, “[LA31] Phou Samsoum, Xieng / Khouang Prov., Laos, N19.093145 / E103.452505, ca 1999 m 27. IV. / 2018, K. Akita leg.”.

*Description.* Male ( $n = 3$ ). Body oblong and convex. Coloration of body surface brown to dark brown; antennomeres I–V, mouthparts, and legs brown; antennomeres VI–IX dark brown; eyes dark brown to black. Dorsal vestiture dual, consisting of a mixture of long and short stout yellowish bristles. Head with frons broadly concave, with a weak median elevation, shallowly punctate; frontoclypeal ridge projected forward to form two clypeal teeth at the middle and two subtriangular plates at each side; clypeal teeth separated by distance subequal to their basal width. Antennae 9-segmented with loosely jointed 3-segmented club. Relative lengths of antennomeres as follows: 5.09, 2.89, 2.49, 1.71, 1.31, 1.00, 3.50, 3.84, and 5.91. Pronotum 0.74 times as long as wide; widest near the base; anterior edge projected forward with paired subtriangular plates; anterior angles obtusely angulate; posterior angles rounded; lateral margins invisible dorsally; punctuation single, surface between punctures smooth; vestiture composed of suberect, stout yellowish bristles. Prosternal process laminate, extending to level of procoxa in lateral view. Scutellar shield nearly triangular, 0.56 times as long as wide. Elytra 1.20 times as long as wide and 1.73 times as long as pronotum; edges subparallel at the basal two-thirds, arcuately narrowed at apical one-third; apex rounded; punctuation single; vestiture composed of two types of bristles. Metaventricle with discrimen about half the length. Hind wings developed, apparently functional. Protibia with a simple outer edge and outer apical angle projecting into a stout tooth. First abdominal ventrite bearing a circular median setose patch. Relative lengths of ventrites at the midline as follows: 3.97, 1.70, 1.34, 1.00, and 1.73. Male genitalia of holotype about 0.24 mm long (Fig. 2A). Tegmen (Fig. 2B) 2.30 times as long as wide, widest near apex, sides subparallel for basal half, then diverging toward the apex; apex trilobed in dorsal view; median projection slightly longer than lateral ones, with recurved hook on each side. Penis (Fig. 2C) about the same length as tegmen, 2.88 times as long as wide; sides subparallel for basal half, then diverging to apical fifth; apex broadly rounded; base with a pair of short struts.

Female. Frons flattened. Frontoclypeal ridge without clypeal teeth at the middle, lateral portion of ridge slightly angulate. Anterior edge of pronotum without paired subtriangular projections. First abdominal ventrite without a circular median setose patch.

*Measurements.* Male ( $n = 3$ ; in mm): TL 2.14–2.53 ( $2.30 \pm 0.20$ ); PL 0.76–0.97 ( $0.85 \pm 0.11$ ); PW 1.08–1.22 ( $1.13 \pm 0.08$ ); EL 1.38–1.56 ( $1.45 \pm 0.09$ ); EW 1.12–1.29 ( $1.19 \pm 0.09$ ). Female ( $n = 16$ ; in mm): TL 2.05–2.33 ( $2.20 \pm 0.10$ ); PL 0.71–0.87 ( $0.79 \pm 0.05$ ); PW 0.98–1.19 ( $1.06 \pm 0.05$ ); EL 1.31–1.53 ( $1.42 \pm 0.06$ ); EW 1.05–1.24 ( $1.13 \pm 0.06$ ).

*Diagnosis.* This species can be separated from the two Japanese species *A. inonoti* and *A. quadridentatus* by the presence of an abdominal sex patch in male and shorter dorsal bristles in both sexes. *Acanthocis laoensis* differs from a Australian species, *A. armiger*, based on the shorter paired pro-

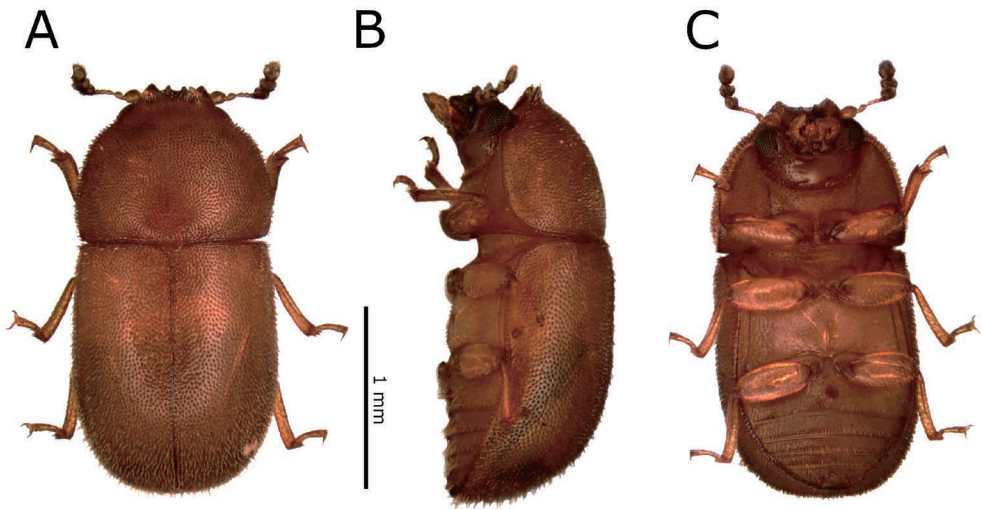


Fig. 1. Male holotype of *Acanthocis laoensis* sp. nov. — A, Dorsal view; B, lateral view; C, ventral view.

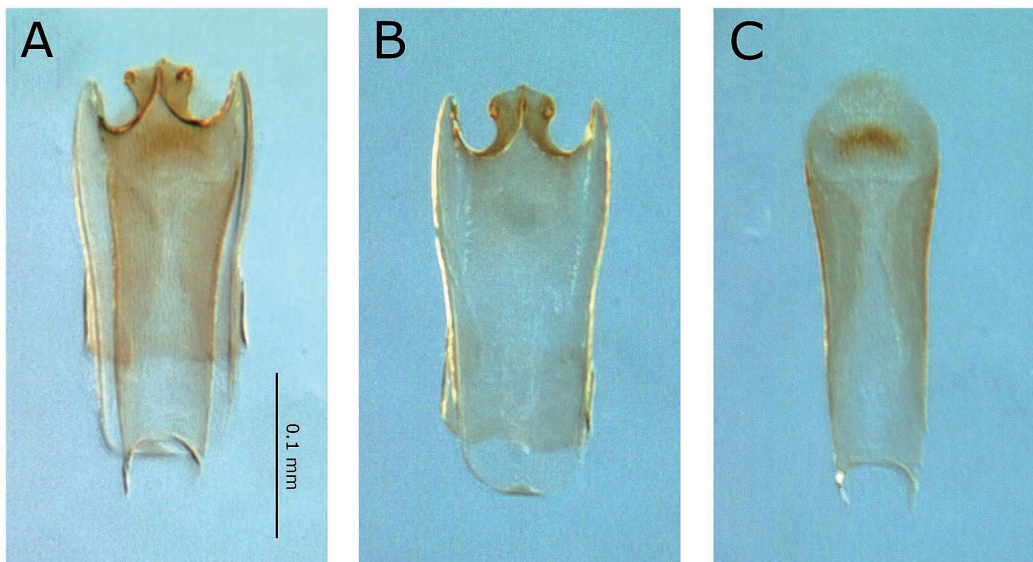


Fig. 2. Male genitalia of *Acanthocis laoensis* sp. nov., holotype. — A, Tegmen, penis, and pregenital ring; B, tegmen; C, penis.

jections of pronotum apex. In addition, the lateral sides of penis of *A. laoensis* diverge from the middle to apical fifth, while those of *A. armiger* are parallel.

*Distribution.* This species has been found in the northern part of Laos.

*Remarks.* This species was collected from polypore fungus *Cryptoporus volvatus*. This fungal species is also known as a host of North American species, *Plesiocis cribrum* CASEY, 1898 (LAWRENCE, 1971), which is presumably related to *Acanthocis*.

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### 要 約

小林卓也：ラオス産アラゲツツキノコムシ属(鞘翅目ツツキノコムシ科)の1新種。———これまで日本およびオーストラリアからのみ知られていたアラゲツツキノコムシ属 *Acanthocis* MIYATAKE の1新種をラオス北部から記載した。本種は比較的短い背面の剛毛と前胸背板前縁の突起、オスにみられる腹部腹板の腹孔やオス交尾器の形状などの特徴の組み合わせにより同属の他種と区別できる。

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