

***Tibetoeme* gen.n. (Coleoptera: Cerambycidae: Cerambycinae: Oemini), a unique cerambycine genus from China**

Wen-Xuan Bi & Carolus HOLZSCHUH

Abstract

Tibetoeme gen.n. (藏縊胸天牛属, Zàng yì xiōng tiān niú shǔ) is established for *Tibetoeme cheni* sp.n. from southeastern Xizang, China. Illustrations of habitus of both sexes, the endophallic structure, and major diagnostic features are provided.

Key words. Taxonomy, new genus, new species, Oriental region, China.

Zusammenfassung

Tibetoeme gen.n. wird für *Tibetoeme cheni* sp.n. aus dem südöstlichen Tibet, China, errichtet. Abbildungen des Habitus beider Geschlechter, der Innensackstrukturen und der wichtigsten diagnostischen Merkmale werden gezeigt.

Introduction

In 2013, the first author captured a pair of a peculiar cerambycine species on a rotten stump in a broadleaf forest at an elevation of 2050 m a.s.l. around Hanmi Village, Motuo County, Xizang, China. Subsequent discussion (with the second author during his visit to Shanghai in 2017) and laboratory investigation indicated that this unknown species belongs to the tribe Oemini LACORDAIRE, 1868 (sensu GRESSITT 1951, GRESSITT & RONDON 1970). However, extensive comparative studies have shown that it cannot be classified into any currently known genus among the Asian Oemini. Therefore, we establish a new genus which is described in this working paper.

Material and methods

Only two specimens are known. The holotype of the new species is deposited in the Insect Collection of Shanghai Normal University, Shanghai, China (SNUC), the paratype will be deposited in the collection of Wen-Xuan Bi, Shanghai, China (CBWX).

All images were taken using a Canon EOS 60D camera equipped with a Canon MP-E 65 mm f/2.8 1-5X Macro Lens. A Canon MT-24EX Macro Twin Lite Flash was used as light source. CombineZM was used for image stacking. The images were edited and grouped in Adobe Photoshop CS3.

Taxonomy

***Tibetoeme* Bi & HOLZSCHUH gen.n.**

Type species. *Tibetoeme cheni* Bi & HOLZSCHUH sp.n.

Description. Body small, body length 7.5 mm in male, 11.5 mm in female, moderately slender, covered with dense, short, suberect hairs (or setae) throughout.

Head large, broader than pronotum in male, as broad as pronotum in female, broadest across eyes. Frons transverse, shallowly depressed along anterior margin, with a fine longitudinal furrow extending from its middle to vertex. Genae very short; temples highly reduced, gradually constricted to neck. Eyes deeply emarginated, coarsely faceted; large and prominent in male, relatively small in female; interocular space slightly narrower than distance between antennal cavities. Maxillary palpus with fusiform terminal segment, 1.5 times as long as penultimate segment. Antennal tubercles moderately separated and raised. Antennae about twice as long as body in male, subequal to body length in female, not fringed beneath; scape short, strongly clavate, without cicatrix; flagellomeres slightly transversally flattened; flagellomere III longest, twice as long as scape, slightly longer than flagellomeres I and II, subequal to IV, the following flagellomeres gradually decreasing in length towards apex.

Pronotum cylindrical, 1.1 times as long as basal width in male, length subequal to basal width in female; sides distinctly constricted before and behind paired obtuse lateral tubercles near middle; anterior margin roughly forming a collar, basal margin relatively broader in female; disc gently convex, provided with five swellings (or calli, Fig. 3), of which one pair is large, longitudinally oval and situated on the sides slightly before midlength, one pair with similar shape to the former pair, calli more distant from each other, and located close to the hind angles, and one small and narrow swelling medially near the base. Prosternum with procoxal cavities broadly open posteriorly; prosternal process narrow, with slightly dilated apex. Mesocoxal cavities open to mesepimera.

Elytra elongate, ca. 2.4 times as long as humeral width, ca. 2.3 times as long as head and pronotum; narrowed backwards in male, subparallel-sided in female, with respectively rounded apices; disc densely and coarsely punctured throughout.

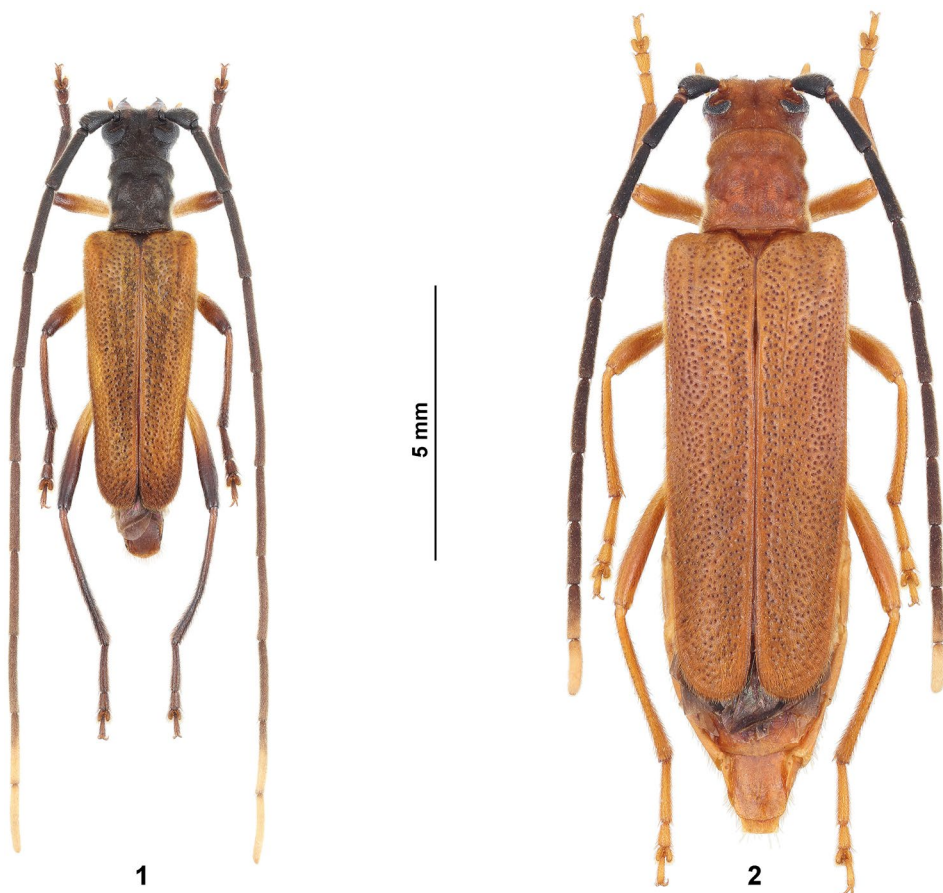
Abdomen with tergites VI to VII exposed in dorsal view; ventrites I to V subequal in length in male, ventrite V slightly shorter than others in female.

Legs moderately long and slender; procoxae prominent, subconical, angulate externally; femora weakly clavate; mesotibiae densely toothed along external margin, more significant in female; hind tarsi with first tarsomere 1.5 times as long as the following two tarsomeres combined.

Etymology. The name is a combination of “Tibet” (= Xizang), the type locality of this genus, and the generic name “*Oeme*”. Gender feminine.

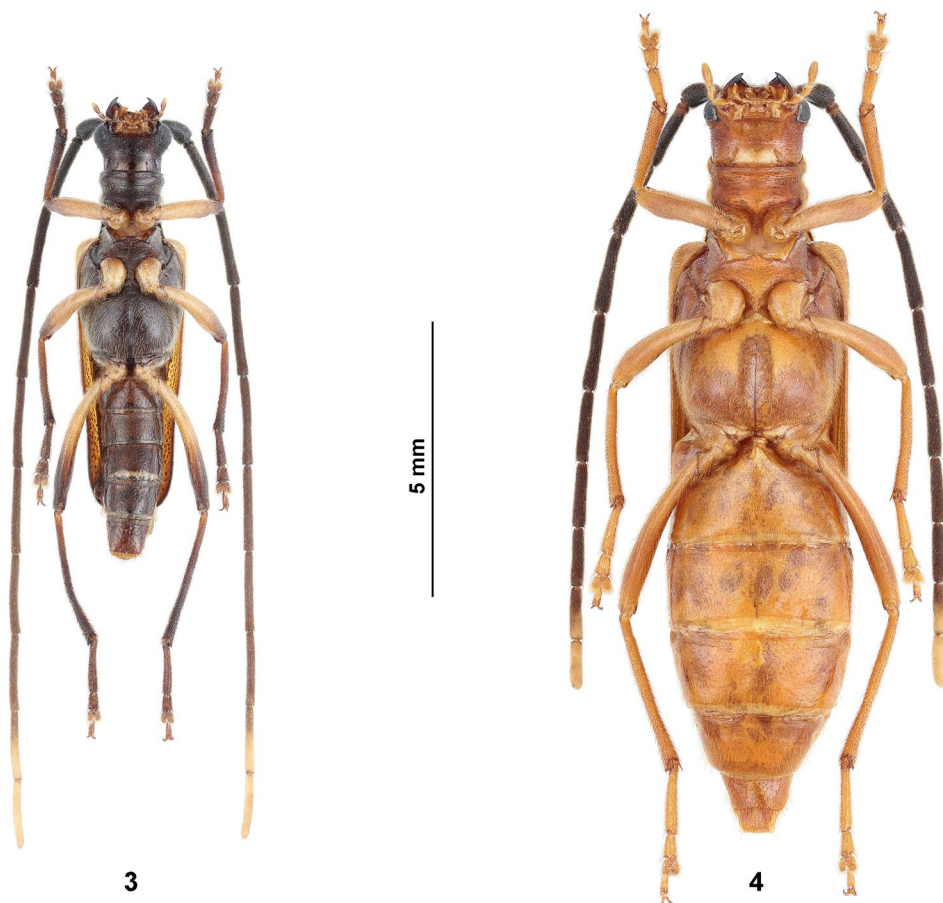
Distribution. China: Xizang.

Remarks. This new genus should be placed into the tribe Oemini based on the combination of the following characters: eyes coarsely faceted; procoxae prominent, subconical, angulate externally; procoxal cavities broadly open posteriorly; prosternal process narrow; mesocoxal cavities open to mesepimera.



Figs. 1–2. Habitus of *Tibetoeme cheni* sp.n., dorsal view: (1) male (holotype); (2) female (paratype).

It can be readily recognized among the Asian genera of the tribe by the elongate and colored pronotum (at least in male). It superficially resembles *Lubosia* HOLZSCHUH, 2011, but is easily distinguishable mainly by the large, emarginated and coarsely faceted eyes (small, rounded and finely faceted in *Lubosia*), the antennal tubercles distant from each other (very close to each other in *Lubosia*), and different proportions of the antennal segments. It can be differentiated from *Tetraommatus* PERROUD, 1855 particularly by the undivided eyes and a pronotum without lateral spines. It can be separated from *Eduardiella* HOLZSCHUH, 1993 of the tribe Compsocerini by the coarsely faceted eyes, the comparatively shorter and thicker scape, the pronotal disc with five swellings instead of two, and femora which are not suddenly thickened apically. It can be distinguished from *Elongatomerionoeda* HAYASHI, 1977 (in Molorchini sensu HAYASHI (1977) or in Thranini sensu VIVES & NIISATO (2014)) by the coarsely faceted eyes with large upper lobes (at least in male), the clavate scape, a pronotum provided with lateral tubercles, and unshortened elytra.



Figs. 3–4. Habitus of *Tibetoeme cheni* sp.n., ventral view: (3) male (holotype); (4) female (paratype).

***Tibetoeme cheni* Bi & HOLZSCHUH sp.n. (Figs 1–9)**

Type material. holotype (male) “CHINA. Xizang, Motuo / Hanmi, 2050 m / 2013.VII.13 / leg. Wen-Xuan Bi” (SNUC); paratype (1 female), same data as holotype (CBWX).

Description. Male (Figs 1, 3). Length from tip of mandibles to elytral apices 8.5 mm, width at elytral humeri 2.1 mm.

Colour. Head, prothorax, and scutellum dark brown, covered with dense brown hairs. Elytra mostly tawny, slightly darkened apically, covered with same coloured hairs. Ventral surface brown, moderately covered with tawny to dark brown pubescence. Head with maxillary palpomeres light brown; antennae mostly dark brown, gradually becoming lighter on the apical one and a half flagellomeres. Legs with coxae, trochanters and basal half of femora tawny; remainders brown.

Structures. Head (Fig. 5) large, eyes prominent, width across eyes 1.3 times as broad as pronotal base; surface rugose, mostly provided with coarse punctures; genae short, less



Figs. 5–9. Details of head, pronotum, and terminalia of male of *Tibetoeme cheni* sp.n.: (5) head and pronotum, dorsal view; (6) tergite VIII; (7) tegmen, ventral and lateral view; (8) median lobe, ventral and lateral view; (9) endophallus in non-everted condition (not to scale).

than 0.4 times of longitudinal eye diameter; temples shorter than the transverse diameter of the eyes; frons about 1.3 times wider than long; vertex weakly convex. Antennae about 1.9 times body length; relative lengths of antennomeres as follows: 0.49 : 0.18 : 1.0 : 1.37 : 1.48 : 1.43 : 1.36 : 1.3 : 1.24 : 1.11 : 1.06.

Pronotum (Fig. 5) with lateral tubercles situated little before midlength, the width across the lateral tubercles almost as broad as pronotal base; disc rugose, coarsely punctured as head.

Elytra slightly more than 2.4 times as long as humeral width, gradually narrowed from humeri to respectively rounded apices.

Legs moderately long and slender; femora and tibiae roughly straight and cylindrical; metafemora almost extending apical margin of abdominal ventrite IV in ventral view; tarsomeres I and II with highly reduced ventral pads.

Genitalia. Tergite VIII (Fig. 6) trapezoidal, lateral sides broadly rounded, anterior margin deeply emarginated and sparsely bearing intermixed short and fairly long setae. Tegmen (Fig. 7) with moderately long lateral lobes, about 0.3 times as long as entire length of tegmen, gradually widened distally, with rounded apices; curved inward near apical two-fifths in lateral view (Fig. 7b); apical setae sparse, short to long. Median lobe (Fig. 8) 1.3 times as long as tegmen, curved near midlength in lateral view (Fig. 8b); ventral plate weakly emarginated at apex; median struts slightly shorter than half of the whole length. Endophallus in inflated and non-everted condition (Fig. 9) simple, ca. 2.5 times as long as median lobe; roughly straight in most of its length, then strongly curved dorsally near apex; moderately swollen near apical fourth; mostly covered with sparse fine spicules except on apical fifth; crescent-shaped sclerites present; ejaculatory duct single.

Female (Figs 2, 4). Length from tip of mandibles to elytral apices 11.5 mm, width at elytral humeri 3.4 mm. Body and legs almost uniformly tawny, except for the head and prothorax slightly darker; coloration of antennae similar as in male, except the extreme base of scape and pedicel tawny. Head relatively narrower compared to male, its width across the eyes as broad as pronotal base. Elytra more elongated than in male, about 2.5 times as long as humeral width. Antennae and legs relatively short; antennae hardly exceeding elytral apex; metafemora reaching apical margin of abdominal ventrite II in ventral view.

Etymology. The specific epithet is dedicated to Mr. Chang-Chin Chen, who devoted great enthusiasm to the survey of the Chinese cerambycid fauna and continuously supports the authors in various ways.

Distribution. China: Xizang (Motuo County).

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Authors' addresses: Wen-Xuan Bi,
Room 401, No. 2, Lane 155,
Lianhua South Road, Shanghai,
201100 China
E-mail: insectb@163.com

Carolus HOLZSCHUH,
Spitzeckweg 11,
A-9500 Villach, Austria
E-mail: carolus.h@aon.at

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