

## A New species of the genus *Exocentrus* Dejean, 1835 from China (Coleoptera: Cerambycidae: Lamiinae)

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**Abstract.** *Exocentrus gaoligongensis* sp. nov. from China (Yunnan) is described and illustrated.

### INTRODUCTION

The genus *Exocentrus* Dejean, 1835 currently belonging to the tribe Pogonocherini Mulsant, 1839 (Löbl & Smetana 2010) because Sama (2023) synonymized Exocentrini Pascoe, 1864 with Pogonocherini. Furthermore the tribe Exocentrini was previously regarded as a synonym of Acanthocinini Blanchard, 1845 for a long time (e.g. Aurivillius 1923, Gressitt 1951, Breuning 1962). The species-rich genus *Exocentrus* Mulsant, 1839 was established with type species *E. lusitanus* (Linnaeus, 1767).

In the revision of the genus *Exocentrus*, Breuning (1958) lists a total of 259 species from the Palaearctic, Afrotropical, Oriental and Australian regions, which he divides into ten subgenera. Two more subgenera were described later. To date, 409 species have been described only from the Old World. From Asia to the Papuan Region 241 taxa of this genus are known (Tavakilian & Chevillotte 2024). In many cases, it is not possible to divide the *Exocentrus* species into the known thirteen subgenera, as the differentiation is unsatisfactory. Characteristics used for this purpose do not allow a reliable assessment and differentiation into the respective subgenera. A revision of the subgenera is urgently needed as already pointed out in Holzschuh (2015). Accordingly, a large number of *Exocentrus* species are currently not assigned to any subgenus.

In the present paper, we describe a new species of the genus *Exocentrus* from materials which were collected in Southern China (Yunnan) by the first author in 2016. So far, about 60 species are known in China including Taiwan (Tavakilian & Chevillotte 2024), for 40 of them the “locus typicus” is known from China.

Description of the new species *Exocentrus gaoligongensis* sp. nov is provided. The habitus of both sexes and male genitalia are illustrated. The new species is compared to the most related species *Exocentrus alni* Fisher, 1932, which is also depicted. *E. alni* is a himalayan species which is also known from higher elevations of about 1.500 m a.s.l. (Fisher 1932) and more (Weigel & Holzschuh 2009) like the new species.

## MATERIAL AND METHODS

Observation and photography. The habitus of all specimens and genitalia photographs were taken using a Canon MP-E 65mm/2.8 1–5× Macro lens on bellows attached to a Canon EOS 550D camera. Each photograph was taken as several partially focused images and afterwards composed in the Helicon Focus 8.2.18 Pro software. The photographs were modified using Adobe Photoshop CC.

Type material of *Exocentrus gaoligongensis* sp. nov. is deposited in the following collections:

CAW collection of Andreas Weigel, Wernburg, Germany;

CPV collection of Petr Viktora, Kutná Hora, Czech Republic.

A slash (/) separates data in different lines on locality and determination labels.

## TAXONOMY

### Genus *Exocentrus* Dejean, 1835

**Type species.** *Callidium lusitanicum* Olivier, 1790 (= *Cerambyx lusitanus* Linnaeus, 1767).

### *Exocentrus gaoligongensis* sp. nov.

(Figs. 1-2)

**Type locality.** China, Yunnan, Gaoligong Shan mts., road from Liuku to Pianma, 2200 m alt., 25°58' N, 98°46' E.

**Type material.** Holotype (♂): 'SW China, Yunnan prov.,' / 'Gaoligong Shan mts.' / 'road from Liuku to Pianma, 2200m' / '25°58'N 98°46'E, 1. – 4. vi. 2016' / 'P. Viktora lgt.', (CPV). Paratypes: (2 ♂♂, 1 ♀): same data as holotype, (CAW, CPV).

The types are provided with a printed red label: 'Exocentrus gaoligongensis sp. nov.' / 'HOLOTYPUS [respective PARATYPUS]' / 'P. Viktora et A. Weigel det., 2024'.

**Description.** Habitus of male holotype as in Fig. 1a. Body from dark brown to black, relatively wide but elongate, punctate, with pubescence and setation. Body length from head to elytral apex 6.75 mm (male paratypes from 5.8 to 6.45 mm), the widest at half elytral length (2.25 mm), 3 times longer than wide.

Head black, small and short, widest across the eyes, slightly narrower than pronotum at the widest point. Dorsal surface with dense irregular micropunctuation/microgranulation and sparser larger-sized punctuation on frons, semi-glossy, partly covered by sparse ochre yellow and pale yellowish pubescence and by very long, sparse, erect yellowish setation (mainly on frons). Frons transverse, head with narrow longitudinal furrow between eyes. Eyes large, goldenish, finely faceted, strongly emarginate (not divided into two parts). Antennal insertions elevated. Clypeus and labrum ochre yellowish, shiny, partly with micropunctuation, with very long yellowish setation, labrum slightly prolonged anteriorly. Mandibles from brown to black (largely black), shiny, with yellowish setation on edges.



1a



2



1b



3

Fig. 1. *Exocentrus gaoligongensis* sp. nov., a- male holotype (body length 6.75 mm); b- male genitalia.

Fig. 2. *Exocentrus gaoligongensis* sp. nov., female paratype (body length 7.5 mm).

Fig. 3. *Exocentrus alni* Fisher, 1932 (CAW): female from Nepal, Bagmati province, Dolakha district (body length 6.45 mm).

Maxillary palpus blackish brown, shiny, with indistinct micropunctuation and sparse yellowish setation. Palpomeres narrow, last palpomere the longest, narrowly drop-shaped, distinctly narrowed apically into very narrow, rounded paler tip.

Antennae with eleven antennomeres, antennomeres blackish brown, shiny, with very dense, relatively coarse small-sized punctuation/granulation. Antennomeres covered by long greyish and darker shiny pubescence and by very long, erect setation mainly on inner side (as in Fig. 1a). Antennomeres slightly widened apically, without spines, antennal scape the widest, club-shaped. Antennae distinctly exceeding elytral apical margin (as in Fig. 1a). Antennomere 2 the shortest, antennomeres 1 and 3 the longest. Ratios of relative lengths of antennomeres 1-11 equal to: 1.00 : 0.23 : 1.00 : 0.97 : 0.80 : 0.74 : 0.73 : 0.66 : 0.64 : 0.59 : 0.63.

Pronotum blackish brown, transverse, distinctly narrower than elytra, narrowest at base, 1.48 times wider than long at the widest point (tips of spines at one third pronotal length from base to apex). Lateral margins prolonged into distinct spines, pronotal disc only slightly convex without distinct tubercles, anterior margin slightly undulate, base slightly arcuate. Pronotal surface with dense small-sized punctuation/granulation, very finely wrinkled. Pronotum partly covered by long ochre yellow and greyish pubescence, and recumbent, almost colourless shiny pubescence (as in Fig. 1a). Pronotum with very long, sparse, erect yellowish setation.

Scutellum small, widely shield-shaped, blackish, with dense micropunctuation, partly covered by recumbent ochre yellow pubescence (as in Fig. 1a).

Elytra 5.0 mm long and 2.2 mm wide (2.27 times longer than wide), from brown to blackish brown, with irregular small-sized punctuation/granulation (elytral disc partly with larger-sized punctures), elytral surface distinctly wrinkled (as in Fig. 1a). Elytral disc flat, arcuate at apical quarter. Elytra covered by ochre yellow and greyish pubescence of several shades and colourless shiny pubescence (as in Fig. 1a) and sparse, very long, erect dark setation. Elytra widest at base, narrowing apically at apical third, humeri distinct, rounded. Elytral apex arcuate, without spines, apical margin with short yellowish setation.

Legs largely blackish brown, semi-glossy, tibiae widened apically, femora club-shaped, flattened. Legs with very dense, irregular, shallow small-sized punctuation/micropunctuation, partly covered by greyish and darker shiny pubescence of several densities and by long yellowish setation (densest on apical half of tibiae). Tarsi relatively short, with dense, irregular small-sized punctuation, covered by indistinct shiny pubescence and longer pale setation. Claws paler - reddish brown. Metatarsomere 1 1.34 times longer than metatarsomeres 2 and 3 together.

Ventral side of body blackish brown, with dense small-sized punctuation/granulation, largely covered by pale shiny pubescence of several densities (densest on apical parts of ventrites). Elytral epipleura dark brown, narrow, slightly undulate, partly covered by ochre yellowish and greyish pubescence and sparse, very long erect setation.

Genitalia as in Fig. 1b.

**Female.** Habitus of female paratype as in Fig. 2. Body length from head to elytral apex 7.5 mm. Colour of female similar to male. Female without many distinct differences, spines on lateral margins of pronotum longer and narrower than in male.

**Differential diagnosis.** The most similar species is *Exocentrus alni* Fisher, 1932 (Fig. 3). *Exocentrus gaoligongensis* sp. nov. (based on comparison of females) differs from the similar species *E. alni* mainly by the more elongate body, the distinctly more elongate darker elytra, the different shape of pubescent spots on the pronotum and elytra (especially visible on the pronotal disc), the wider antennal scape, and the different shape of the pronotum with distinctly different spines on lateral margins (narrow straight spine, slightly directed to behind in *E. gaoligongensis*, while wide, distinctly curved spine towards pronotal base in *E. alni*). *E. alni* also has a small truncate spine in pronotal basal angles, which are absent in *E. gaoligongensis* (as in Figs. 2 and 3).

**Etymology.** Toponymic, named after the type locality, Gaoligong mountains.

**Distribution.** China (Yunnan).

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