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● Review of the genus *Pterolamia* Breuning, 1942 (Coleoptera, Cerambycidae) with description of a new species from China

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Abstract: In this study, the genus *Pterolamia* Breuning is briefly reviewed, and the second species, *Pterolamia quadricristata* **sp. nov.**, from Hunan, China, is described and illustrated.

Keywords: Lamiinae, longicorn beetle, new species, taxonomy

● 坡沟胫天牛属研究回顾及中国一新种记述（鞘翅目：天牛科）

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摘要：本文简要回顾了坡沟胫天牛属 *Pterolamia* Breuning 并记述了采自湖南的该属第二种：四脊坡沟胫天牛 *Pterolamia quadricristata* **sp. nov.**

关键词：沟胫天牛亚科，天牛，新种，分类学

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Introduction

The monotypic genus *Pterolamia* was established by Breuning (1942) for the species *Pterolamia strandi* Breuning, 1942, originally from an unknown locality (Tavakilian & Chevillotte 2024). Hua (1986) was the first to record *P. strandi* in Hainan, China. Later, Lin & Tavakilian (2019) listed the type locality of this species as Hainan in the *Catalog of Chinese Coleoptera* but provided no further annotations or notes.

In the present study, the second species, *Pterolamia quadricristata* **sp. nov.** is described and illustrated based on a specimen from Hunan, China.

Material and methods

Photographs were taken using a Canon 7D Mark II DSLR camera with a Canon EFS 100 mm lens and edited using Adobe Photoshop 2020 release. Extended depth of field at magnifications was achieved by combining multiple images from a range of focal planes using Helicon Focus software.

The label text for all studied specimens is provided exactly as it appears, without any corrections or additions, and is enclosed in single quotation marks. Individual labels are separated by a semicolon, and information from different rows is separated by a single slash. Any additional or explanatory comments from the author are placed in square brackets.

The material examined for this study is deposited in the following collections: **USNM**—National Museum of Natural History, Smithsonian Institution, Washington, DC, USA; **YZU**—Insect Collection, College of Agriculture, Yangtze University, Jingzhou, China.

Taxonomy

Genus *Pterolamia* Breuning 坡沟胫天牛属

Breuning 1942: 128; Breuning 1962: 492; Lin and Tavakilian 2019: 370.

Type species: *Pterolamia strandi* Breuning, 1942, by original designation and monotypy.

Diagnosis. Body elongate-oval, clothed with greyish-white erect hairs, especially on antennae and legs, and decorated with hair tufts on elytral ridges. Head retractable, frons much wider than high, vertex depressed; eyes coarsely faceted, deeply divided. Antennae moderately thick, slightly longer (male) or shorter (female) than body, fringed underneath; antennal tubercles flat; scape moderately long, slightly thick; antennomere 3 about as long as antennomere 4, barely longer than scape. Pronotum transverse and convex, rounded laterally, with a small tubercle on each side of disc midline. Elytra nearly oval, very convex, rounded apically, with base barely wider than pronotum. Prosternal process narrow, lower than coxae, and evenly arcuate; mesosternal process gradually slopes forward; Metasternum shortened. Hindwings completely reduced. Legs moderately long, femur clavate, mesotibia without an oblique groove near external apex.

Distribution. China (Hainan, Hunan (new provincial record)).

Remarks. This genus is distinguished from its congeners by its suboval and very convex elytra, completely reduced hindwings, shortened metasternum and relatively robust antennae.

Species of this genus have two tiny tubercles on the disc of the pronotum and a low, short longitudinal ridge at the base of each elytron. These features make them somewhat similar to certain species of the genus *Pterolophia*, such as *Pterolophia bituberculatithorax* (Pic, 1930), *Pterolophia fractilinea* (Pascoe, 1865) and *Pterolophia occidentalis* Schwarzer, 1931. However, in the latter species, the elytra are more elongated and the length of the metasternums are normal.

***Pterolamia strandi* Breuning, 1942 坡沟胫天牛**

Figs 1a–d; 2a–f

Breuning 1942: 129; Breuning 1962: 493; Hua 1986: 213; Hua *et al.* 1993: 45, 269; Hua 2002: 227; Hua *et al.* 2009: 111, 248; Lin & Tavakilian 2019: 370.

Type locality: not specified originally.

Type material examined. Holotype: ♀ (USNM), ‘Type [p, label rectangular, red]; *Pterolamia* / *villosa* / *mihi* Typ [h] / det. Breuning [p]; BLNO / 000870 [p, black frame]; 48. *Pterolamia* / Brg. [h, black frame]; *villosa* Brg. [h, black frame]’.

Non-type material examined. 2♂♂ (YZU), **China, Hainan**, Wuzhishan National Nature Reserve [五指山自然保护区], 18°52′54.40″N, 109°40′07.54″E, Alt. 637 m, May 17, 2014, leg. Lanbing Xiang; 2♀♀ (YZU), **China, Hainan**, Changjiang county, Bawangling National Nature Reserve [霸王岭自然保护区], Dong’er Protection Station [东二管护站], 19°05′51.52″N, 109°10′46.63″E, Alt. 1006 m, May 29, 2014, leg. Lanbing Xiang.

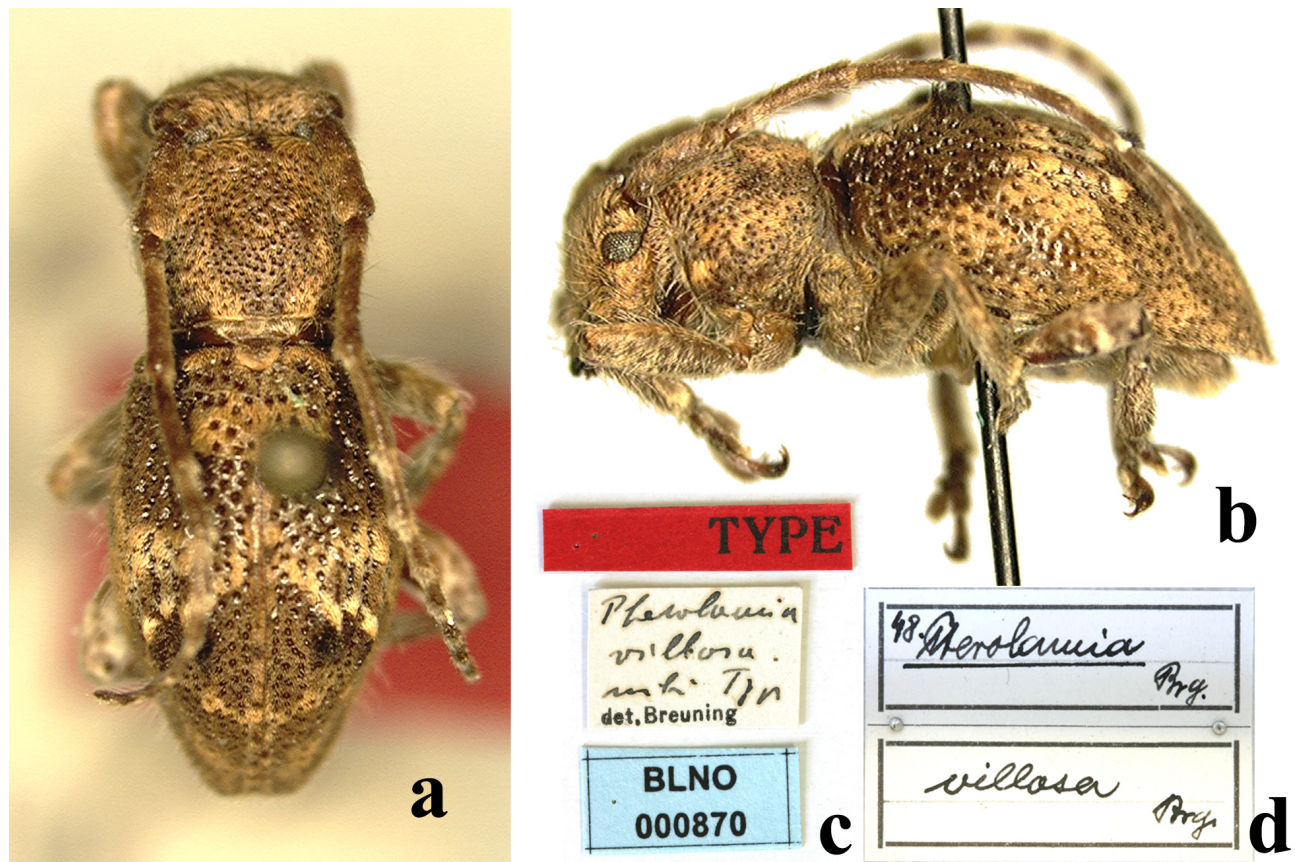


FIGURE 1. Holotype of *Pterolamia strandi* Breuning, 1942, ♀: **a** dorsal view **b** lateral view **c, d** labels. (© Smithsonian Institution)

Distribution. China (Hainan).

Remarks. Breuning (1942) described this species based on a female specimen without locality from the collection of Tippmann. Hua (1986) was the first to report its distribution in Hainan, China. Subsequently, Hua *et al.* (1993, 2009) included the pictures of this species in their works, which closely resemble the holotype images of *Pterolamia villosa* Breuning displayed on the Smithsonian Institution’s website (Lingafelter SW *et al.* 2024). Additionally, Bezark (2024) cited the holotype images of *P. villosa* Breuning under the name *P. strandi* in his *Photographic Catalog of the Cerambycidae of the World*. However, no record of *P. villosa* Breuning can be found in formal publications, indicating that this name was never formally published and is therefore a *nomen nudum*. It is believed that when Breuning identified this specimen, he initially named the new species *Pterolamia villosa*, but

later published it under the name *Pterolamia strandi*.

Lin & Tavakilian (2019) listed the type locality of this species as Hainan in the *Catalog of Chinese Coleoptera* but provided no further annotations or notes. However, on the Smithsonian website, detailed collection information for the type specimen indicates that the locality is Panama, collected by J. Herrera on October 3, 1948. Therefore, the type locality of this species requires further verification.

***Pterolamia quadricristata* sp. nov.** 四脊坡沟胫天牛

<https://zoobank.org/DD283414-098A-402F-B3FD-0AB090F8E66A>

Figs 2g–i

Type material examined. Holotype: ♀ (YZU), **China: Hunan**, Pingjiang county, Nanjiangqiao town [南江桥镇], MuFu Mountain [幕阜山], Yunteng temple [云腾寺], Zhiqing pavilion [知青亭], May 11, 2012, leg. Lujing Yang.

Etymology. The specific epithet of this new species is derived from the Latin words ‘*quadri-*’ and ‘*cristata*’, referring to the elytra have four conspicuously raised short ridges near the base and the middle.

Description. Holotype, female. Body length 7.1 mm, humeral width 2.4 mm. Body mostly dark brown, clothed with dark brown and greyish-yellow pubescence. Head clothed with sparse greyish-yellow pubescence; labrum and clypeus clothed with sparse short erect hairs, with slight yellowish edges. Antennae slightly dark reddish brown, clothed with sparse and evenly distributed dark brown pubescence intermixed with greyish-yellow pubescence, fringed with short greyish-yellow setae below. Pronotum clothed with dark brown to greyish-yellow pubescence, forming three obvious greyish-yellow patches: anterior one at centre, posterior two on either side of base. Scutellum clothed with dark brown pubescence in middle and greyish-yellow pubescence on sides. Elytra mostly clothed with greyish-brown pubescence, provided with a light pubescent patch around scutellum, a pale oblique pubescent band on each side of basal fourth, extending to epipleuron, a large pale pubescent patch behind middle, with greyish-yellow base and slightly greyish-white apex, anterior margin extending obliquely backward from suture to sides, posterior margin arcuate at middle, and a tuft of dark brown setae on basal longitudinal ridges and base and apex of middle longitudinal ridge. Legs partially dark reddish-brown, mottled with dark brown and greyish-yellow pubescence. Ventrites mottled with greyish-yellow and dark brown pubescence, each with greyish-yellow membranous part at end.

Head coarsely reticulate-punctate, frons transverse, slightly bulged. Antennae shorter than body, about reaching to basal three-fourths of elytra; antennal insertions elevated and widely spaced; scape stout, coarsely and shallowly punctate, slightly shorter than antennomere 3; antennomere 3 slightly longer than antennomere 4, remaining gradually decrease in length. Pronotum slightly broader than long, anterior margin slightly broader than posterior margin, lateral margin slightly constricted after middle; disc slightly convex, with punctures denser and thinner than those on head and elytra and a tiny tubercle on each side of middle. Scutellum short, broadly rounded apically. Elytra oblong-ovate, about 2.0 times as long as width across humeri, strongly swollen above, steeply sloping behind middle, with rounded apices; punctures coarse and sparse at base, gradually becoming finer towards apex; each elytron provided with a well-developed short longitudinal median ridge at base, followed by a relatively long longitudinal ridge, slightly concave above at middle, extending from basal one-third to basal two-thirds of elytron, and other three somewhat obvious longitudinal carinae on outer side of these two ridges, of which outer and inner ones long, extending nearly to preapex, middle one short, reaching about to middle. Distal ventrite provided with a median longitudinal sulcus. Legs moderately long, robust, with metafemur extending to posterior margin of third ventrite.

Male. Unknown.

Differential diagnosis. The new species is distinguished from the type species *P. strandi* by the elytra with more elevated subbasal and middle short ridges, a large fan-shaped light-coloured marking after the middle, and an additional light-coloured oblique band at the basal one-quarter.

Distribution. China (Hunan).

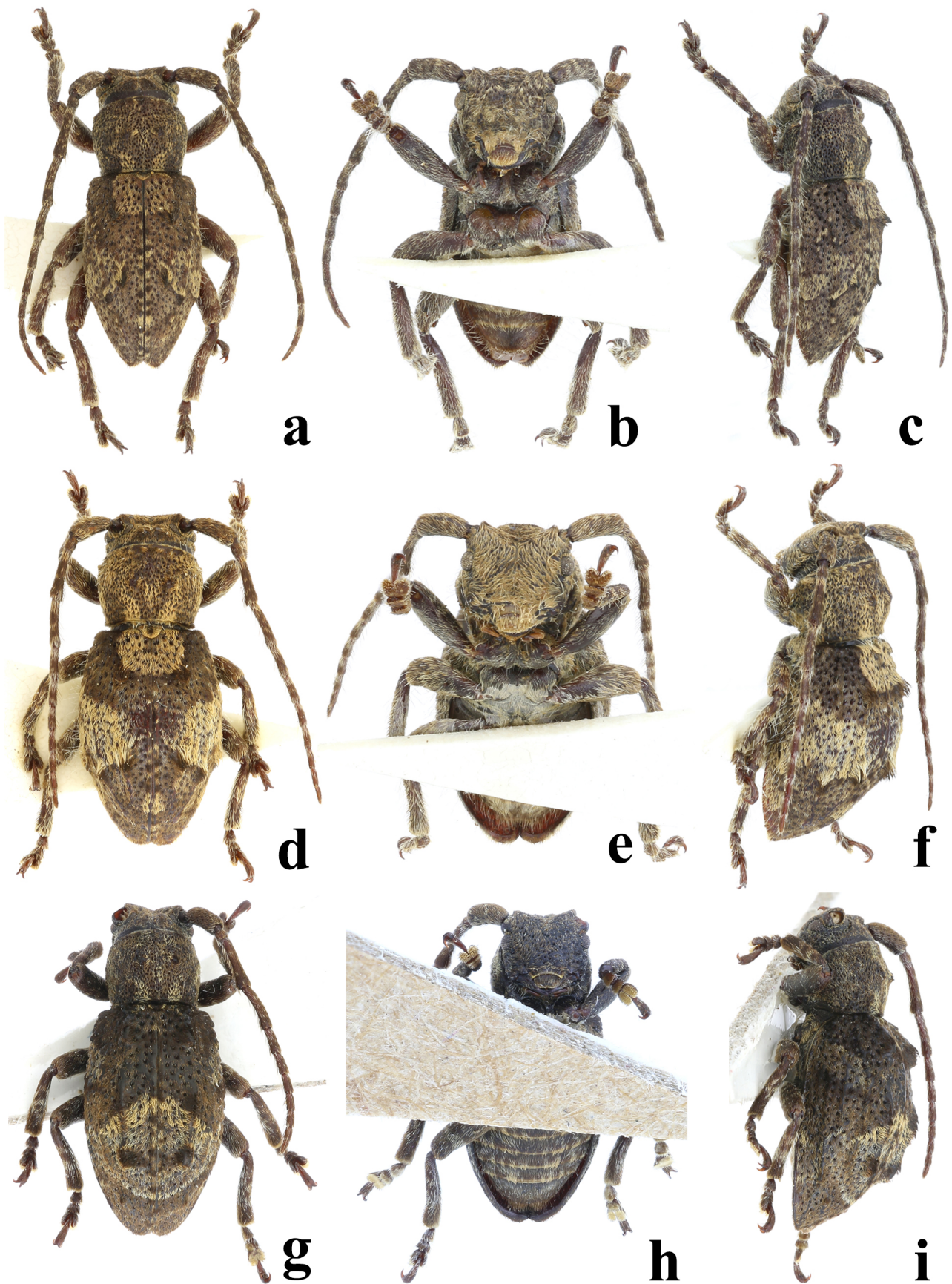


FIGURE 2. Habitus of *Pterolamia* spp.: a–f *Pterolamia strandi* Breuning, 1942 g–i *Pterolamia quadricristata* sp. nov., holotype a–c male d–i females.

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Additional information

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