A new species of *Diuncus* (Curculionidae: Scolytinae: Xyleborini) from Indonesia

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Abstract: *Diuncus liangae* Lin **sp. nov.** is described based on specimens intercepted from an imported vine originating from Indonesia. This new species can be distinguished by elytral summit transversely impressed with a saddle-like depression; declivital base armed by one pair of denticles on interstriae 2; posterolateral margin forming a circumdeclivital carina extending laterally to interstriae 3, and carina on interstriae 3 and 4 being discontinuous. Morphological descriptions, photographs and illustrations are provided.

Key words: ambrosia beetle; quarantine; taxonomy

印度尼西亚双棘小蠹属一新种记述（象甲科：小蠹亚科：材小蠹族）

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摘要：记述双棘小蠹属 *Diuncus* 一新种：梁氏双棘小蠹 *Diuncus liangae* Lin **sp. nov.**。新种标本从印度尼西亚进口的藤中截获所得，该新种的主要鉴别特征是其鞘翅中部具 1 横向鞍状凹陷，鞘翅斜面基部第 2 沟间部具 1 对齿，斜面斜截并具环脊，脊延伸至第 3 沟间部，第 3 沟间部和第 4 沟间部于斜面基部成不连续的短脊。文中提供了成虫形态描述和形态图片。

关键词：食菌小蠹；检疫；分类

Introduction

The genus *Diuncus* Hulcr & Cognato belongs to the tribe Xyleborini (Coleoptera: Curculionidae: Scolytinae). It was first described by Hulcr and Cognato in 2009, with *Xyleborus papatrae* Schedl, 1972 designated as the type species. Since its establishment, 17 species previously classified under *Xyleborus* Eichhoff have been transferred to *Diuncus* (Hulcr & Cognato 2009; Lin *et al.* 2019). Additionally, *Diuncus taichuensis* (Schedl, 1952) was synonymized with *Diuncus haberkorni* (Eggers, 1920) (Beaver & Liu 2010). Two species, *Diuncus niger* Hulcr & Cognato, 2013 and *Diuncus mollis* Beaver & Liu, 2016 had been

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described (Hulcr & Cognato 2013; Beaver & Liu 2016). Furthermore, *Diuncus ciliatoformis* (Schedl, 1953) and *Diuncus taxicornis* (Schedl, 1971) had been revived as distinct species (Smith *et al.* 2020, 2022).

To date, twenty species of *Diuncus* have been identified, with the majority distributed across Southeast Asia and the Melanesian region. Two species are also found in Africa (Hulcr & Cognato 2009; Ruzzier *et al.* 2023). In Indonesia, five *Diuncus* species have been recorded: *D. haberkorni* (Eggers, 1920), *D. javanus* (Eggers, 1923), *D. justus* (Schedl, 1931), *D. mucronatus* (Eggers, 1923) and *D. quadrispinulosus* (Eggers, 1923) (Smith *et al.* 2020).

In this paper we describe a new species, *Diuncus liangae* **sp. nov.**, which increases the number of *Diuncus* species known from Indonesian to six.

Material and methods

The specimens were intercepted from imported vines originating from Indonesia in August, 1987. All specimens are deposited in Chinese National Zoological Museum of China, Academy of Sciences, Institute of Zoology, Beijing, China (IOZ).

Total length is measured from apex of the pronotum to the apex of the elytra and width is measured at the widest point of the specimen. Pronotal length is measured from the apex to base and width from the widest point. Types of antennal club and pronotum are derived from Hulcr *et al.* (2007) and elaborated upon by Smith *et al.* (2020). Images were taken using a Leica Dvm6A (Leica, Germany).

Taxonomy

Diuncus liangae **Lin sp. nov.** (Figs 1, 2)

Description. Female 3.25–3.35 mm long (mean = 3.30 mm; n = 2); 2.09–2.17× as long as wide. Head, the anterior half of the pronotum, elytral disc and declivity dark-brown; antennae, the basal half of the pronotum and legs brown.

Head. Epistome entirely, transverse, with a row of hair-like setae. Frons weakly convex to upper level of eyes; median carina absent; surface smooth, alutaceous, with minor punctures. Eyes moderately emarginate just above antennal insertion, upper part much smaller than lower part. Submentum narrow, triangular, slightly impressed. Antennal scape regularly thick, approximately as long as club. Pedicel as wide as scape, much shorter than funicle. Funicle 4-segmented, segment 1 as long as pedicel. Club longer than wide, obliquely truncate, type 1; segment 1 corneous, encircling anterior face; segment 2 narrow, slightly concave, corneous on anterior face only; sutures absent on posterior face.

Pronotum. 0.84–0.88× as long as wide. In dorsal view, rounded, type 1; anterior margin with a row of eight serrations, the median pair of serrations distinctly larger than others. In lateral view, rounded and robust, type 5, disc flat, summit at basal 2/5. Anterior slope with densely spaced, large asperities, becoming lower and more strongly transverse towards summit, bearing moderate, fine, semi-erect, hair-like setae. Some longer hair-like setae at anterior and lateral margins. Disc shiny, alutaceous, with sparse, fine punctures and short, semi-erect, hair-like setae. Lateral margins obliquely costate. Base transverse, posterior angles broadly rounded. Mycangial tuft absent.

Scutellum moderately sized, triangular, flush with elytra, flat, shiny.

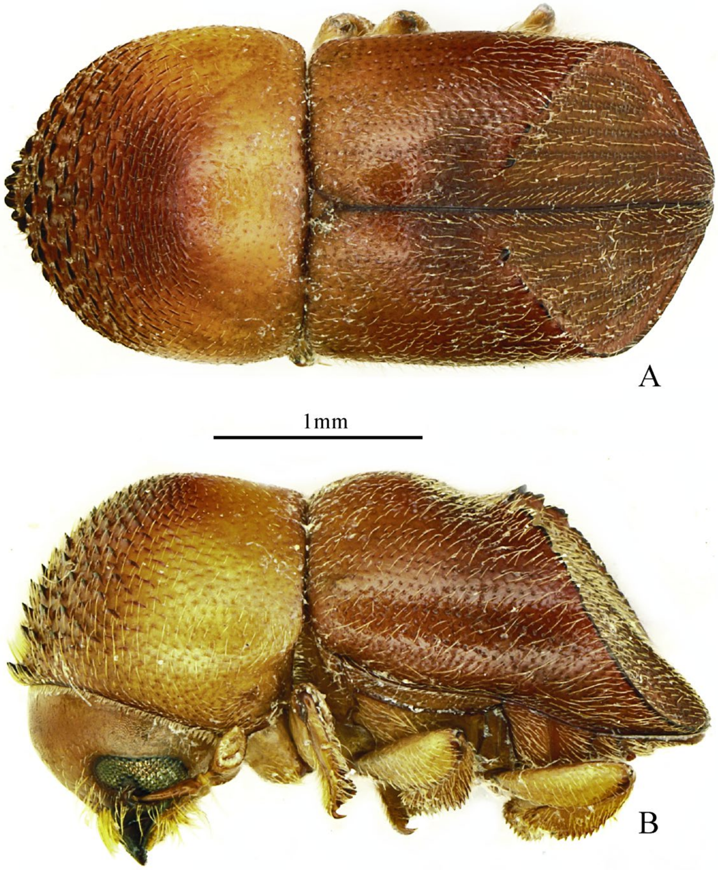

Figure 1. *Diuncus liangae* Lin **sp. nov.** holotype, ♀. A, B. Body, dorsal and lateral views.

Elytra. 1.21–1.28× as long as wide, 1.34–1.52× as long as pronotum. Elytral base transverse, humeral angles rounded, parallel-sided at basal 3/4, then narrowing towards apex. Disc shiny, basal 1/2 convex, and a moderately deep transverse saddle-like, shagreened impression at apical 1/2; striae not impressed, punctures small, slightly shallow, with semi-erect, hair-like setae, punctures separated by 2–3 times diameter of a puncture; interstriae flat, weakly punctate, punctures small and strongly disordered, bearing semi-recumbent, hair-like setae, setae approximately 1/3–1/2 width of interstriae 2, interstriae 2 armed by one large, pointed denticle at declivital base. Declivity truncate, strongly shagreened, setose; six striae present, striae punctate, striae 1–3 long, nearly parallel from base to apex, striae 4 and 5 cross at basal 3/5, striae 6 and 3 cross at apex; interstriae flat, punctures replaced by confused granules, interstriae 1 and 2 with two or three confused rows of semi-recumbent, hair-like setae, interstriae 3–5 with two confused rows of semi-recumbent, hair-like setae at basal 1/2 and approximate uniseriate at apical 1/2. Postero-lateral margin forming a circumdeclivital carina extending laterally to interstriae 3, carina on interstriae 3 and 4 discontinuous.

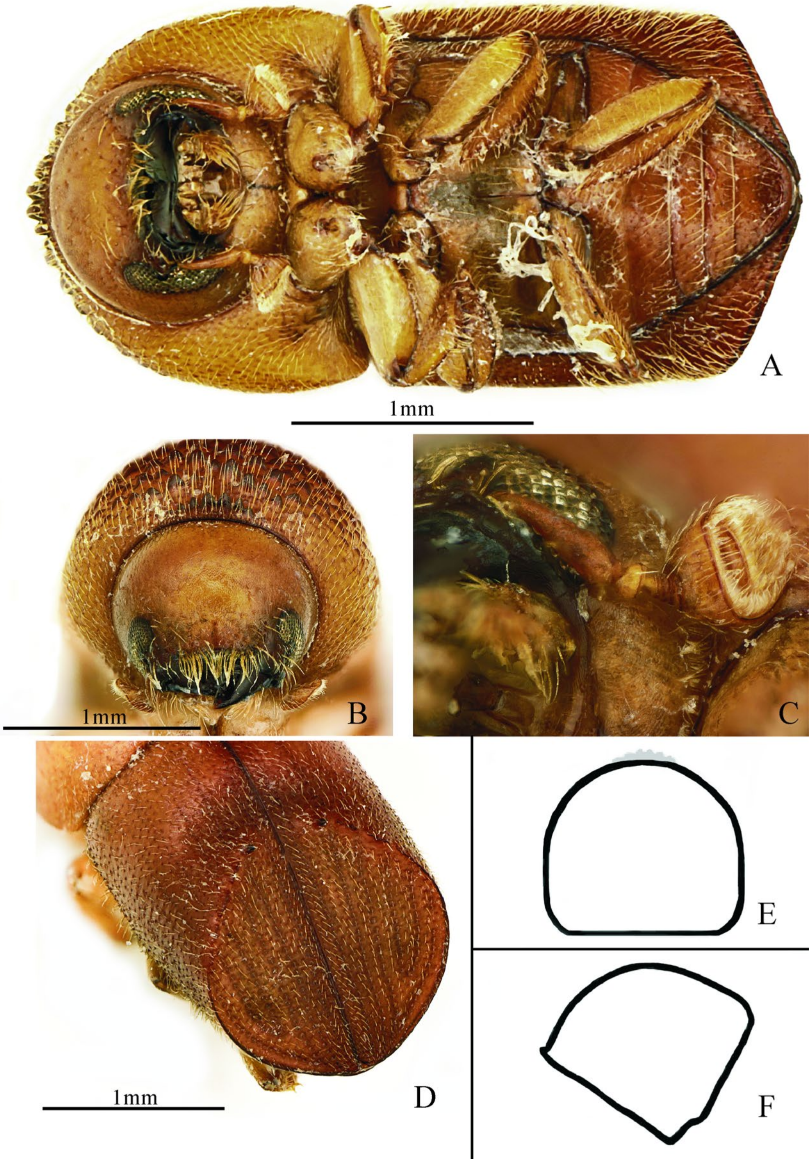

Figure 2. *Diuncus liangae* Lin **sp. nov.** holotype, ♀. A. Body, ventral view; B. Head, front view; C. Antenna, ventral view; D. Elytral declivity, posterior oblique view; E. Pronotal type (type 1), dorsal view; F. Pronotal type (type 5), lateral view. (E, F. Modified from Hulcr *et al*. 2007.)

Legs. Procoxae contiguous; prosternal coxal piece tall and pointed. Protibiae triangular, broadest at apical 1/4; posterior face smooth; apical 1/3 of outer margin with seven large socketed denticles, their length longer than basal width. Meso- and metatibiae flattened; outer margins evenly rounded with 10 and 11 small variably sized socketed denticles, their length as long as basal width.

Male. Unknown.Host plant. Vine.

Holotype. ♀, **Indonesia**, 22-VIII-1987, coll. Zhilin CHEN, intercepted from Wenjindu Port [IOZ (E) 890042]. **Paratype.** 1♀, data same as holotype [IOZ (E) 890043].

Etymology. This new species is named after professor Yibing LIANG, who is a pioneer in China's plant quarantine. Noun in genitive.

Diagnosis. This species is distinguished by the elytral summit transversely impressed with a saddle-like depression; declivital base armed by one pair on interstriae 2; posterolateral margin forming a circum declivital carina extending laterally to interstriae 3, carina on interstriae 3 and 4 discontinuous.

Remarks. This species is similar to *Diuncus dossuarius* (Eggers, 1923) and *D. javanus* (Eggers, 1923) but differs by the declivital base (*D. liangae*: the declivital base armed by one pair denticles on interstriae 2 and carina on interstriae 3, versus *D. dossuarius* and *D. javanus*: the declivital base armed by two pairs of denticles, one pair on interstriae 2 and the other on interstriae 3).

Key to *Diuncus* species of Indonesia (females only)

Partly based on Smith *et al.* (2020)

1. Elytral summit unarmed, declivity nearly glabrous, 1.5–1.7 mm ······································ *D. justus*
-. Elytral summit armed by denticles (denticles may be present posterior to saddle-like impression) ········· 2
2. Elytral summit transversely impressed with a saddle-like depression··· 3
-. Elytral summit convex, without a saddle-like depression ·· 4
3. Declivital interstrial setae thick, scale-like, in uniseriate rows; and posterolateral margin forming a circumdeclivital carina extending laterally to interstriae 7, 2.5–2.7 mm ···························*D. javanus*
-. Declivital interstrial setae finer, hair-like, in two or three confused rows on interstriae 1–2; and posterolateral margin forming a circumdeclivital carina extending laterally to interstriae 3, carina on interstriae 3 and 4 discontinuous, 3.2–3.4 mm·· *D. liangae* **sp. nov.**
4. Declivity flat; declivital summit armed by two pairs of minute sharp denticles ······· *D. quadrispinulosus*
-. Declivity appearing bisulcate; declivital summit armed by two pairs of large oblique denticles ··········· 5
5. Pronotum longer than wide; declivity appearing strongly bisulcate; interstriae 1 and 3–6 clearly convex giving the declivity a rugged appearance ··*D. mucronatus*
-. Pronotum as long as wide; declivity appearing weakly bisulcate; interstriae 1 and 3–6 flat to weakly convex giving the declivity a finely sculptured appearance·······································*D. haberkorni*

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