



## Two new species of *Plateros* Bourgeois, 1879 (Coleoptera: Lycidae) from Xizang, China

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### Abstract

Two new species of *Plateros* Bourgeois, 1879 are discovered from Xizang, China, and described as *P. medogensis* sp. nov. and *P. yini* sp. nov. The description is supported by illustrations of the habitus and male genitalia. The female of *P. busynskyi* (Bocáková, 1997) is recorded for the first time. A key to the species of *Plateros* from Xizang is provided.

**Key words:** net-winged beetles, alpha taxonomy, new species, Himalaya

### Introduction

The genus *Plateros* Bourgeois, 1879 is a highly species-rich group, comprising over 900 species (Kazantsev 2025a) that are widely distributed across the world, predominantly in tropical regions (Bocáková 2001). As one of the world's biodiversity hotspots, China has been recorded with 57 *Plateros* species to date (Kazantsev 2025a). The majority of these Chinese species have been described by Bocáková (1997) and Kazantsev (1991, 2005, 2011, 2017, 2025a), along with our preceding study (Fang *et al.* 2024). However, comprehensive investigations into the Chinese fauna have yet to be initiated, and many species remain undiscovered. In addition, it is necessary to consider several literature resources from neighboring territories in order to identify common species shared between them and China (e.g. Kazantsev 2000, 2020, 2021, 2025b, etc.). In this study, we focus on the species from the Xizang Autonomous Region, and describe two new species herein.

### Material and Methods

The studied specimens are deposited in the Museum of Hebei University, Baoding, China (MHBU).

The specimens were initially softened in water, after which the genitalia of both sexes were dissected. Following dissection, the male genitalia were cleared in a 10% NaOH solution, subsequently examined and photographed in glycerol, and ultimately affixed to a paper card for permanent preservation. Images of the adult specimens were captured with a Canon EOS 80D digital camera, while those of the genitalia were obtained using a Leica M205A stereomicroscope. These images were processed using Helicon Focus 7, and edited in Adobe Photoshop CS3.10.0.1.

Measurements were conducted using ImageJ 1.50i (NIH, Bethesda, MD, USA). Body length was measured from the anterior margin of the head to the elytral apex, and width was recorded across the elytral humeri. Pronotal length was determined from the midpoint of its anterior margin to that of its posterior margin, with width measured at its maximum part. The diameter of each eye was assessed at its maximum point while interocular distance was measured at its narrowest point.

## Taxonomy

**Class Insecta Linnaeus, 1758**  
**Order Coleoptera Linnaeus, 1758**  
**Family Lycidae Laporte, 1836**  
**Subfamily Lycinae Laporte, 1836**  
**Tribe Platerodini Kleine, 1928**  
**Genus *Plateros* Bourgeois, 1879**

***Plateros busynskyi* (Bocáková, 1997)**  
(Figs 1A, B, 2A–C)

*Melaneros busynskyi* Bocáková, 1997: 184, figs 33, 34, 41, 61.  
*Plateros busynskyi*: Bocáková & Bocak 2007: 219.

**Material examined.** CHINA: **Xizang:** 1 ♂, 1 ♀ (MHBU), Nyalam, Zham, 28.VII.2014, G.-D. Ren, X.-L. Bai & J.-S. Shan leg.

**Redescription.** Body length 5.8–6.9 mm (both sexes), width at humeri 1.8–1.9 mm (both sexes).

**Male** (Fig. 1A). Body black, elytra yellow, with a pair of black wide longitudinal stripes. Surface covered with short brownish-yellow pubescence.

Head dorsally flat, eyes small, interocular distance  $1.4\times$  eye diameter. Antennae serrate, reaching elytral middle when inclined, antennomere III  $1.3\times$  longer than II, IV  $1.8\times$  longer than III, V  $1.1\times$  longer than IV, V–XI subequal in length.

Pronotum nearly trapezoidal, width  $1.6\times$  length, anterior margin slightly arched, lateral margins sinuate and distinctly diverging posteriorly, posterior margin bisinuate, anterior angles obtusely rounded, posterior angles moderately projecting postero-laterally.

Elytra widened posteriorly, length  $2.9\times$  width,  $5.4\times$  longer than pronotum along the midlength, with primary and secondary costae slightly developed.

Aedeagus (Fig. 2A–C): phallus stout and approximately  $2.0\times$  longer than phallobase, strongly widened then narrowed apically in dorsal and ventral views (Fig. 2A, B), forming into a ventral finger-like projection which slightly bent dorsally and a dorsal extension which vertically bent in middle point (Fig. 2C) and tapered apically in dorsal and ventral views (Fig. 2A, B), feebly bisinuate in lateral view (Fig. 2C).

**Female** (Fig. 1B). Similar to male, but pronotum has yellow margins and more arched anterior margin, elytra are less darkened, with lateral margins slightly diverging posteriorly.

**Distribution.** China (Xizang).

***Plateros medogensis* Yang, Fang & Wang, sp. nov.**  
(Figs 1C, 2D–F)

**Type material.** HOLOTYPE: CHINA: ♂ (MHBU), Xizang, Nyingchi, Mêdog Tea Plantation, 7. VIII. 2016, T.-F. Qiu leg.

**Diagnosis.** This species is similar to *P. sichuanensis* (Bocáková, 1997), but can be easily differentiated from the latter by the shape of aedeagus, with phallus progressively widened apically and rounded at apex in ventral and dorsal views (Fig. 2D, E), bent dorsally in middle point in lateral view (Fig. 2F). Unlike in *P. sichuanensis*, the phallus is tapered apically in ventral view (Bocáková 1997: fig. 29), and bent dorsally at apical third portion in lateral view (Bocáková 1997: fig. 30).

**Description.** Body length 4.8 mm (holotype), width at humeri 1.2 mm (holotype).

**Male** (Fig. 1C). Body black, pronotum brown around all margins, covered with short brown pubescence.

Head dorsally flat, eyes large, interocular distance  $0.9\text{--}1.0\times$  eye diameter. Antennae serrate, reaching apical third length of elytra when inclined, antennomeres III–X triangular, length  $1.5\text{--}3.0\times$  width, III  $2.1\times$  longer than II, IV  $1.6\times$  longer than II, IV–VIII and XI subequal in length, VIII  $1.2\times$  longer than IX, IX and X subequal in length.

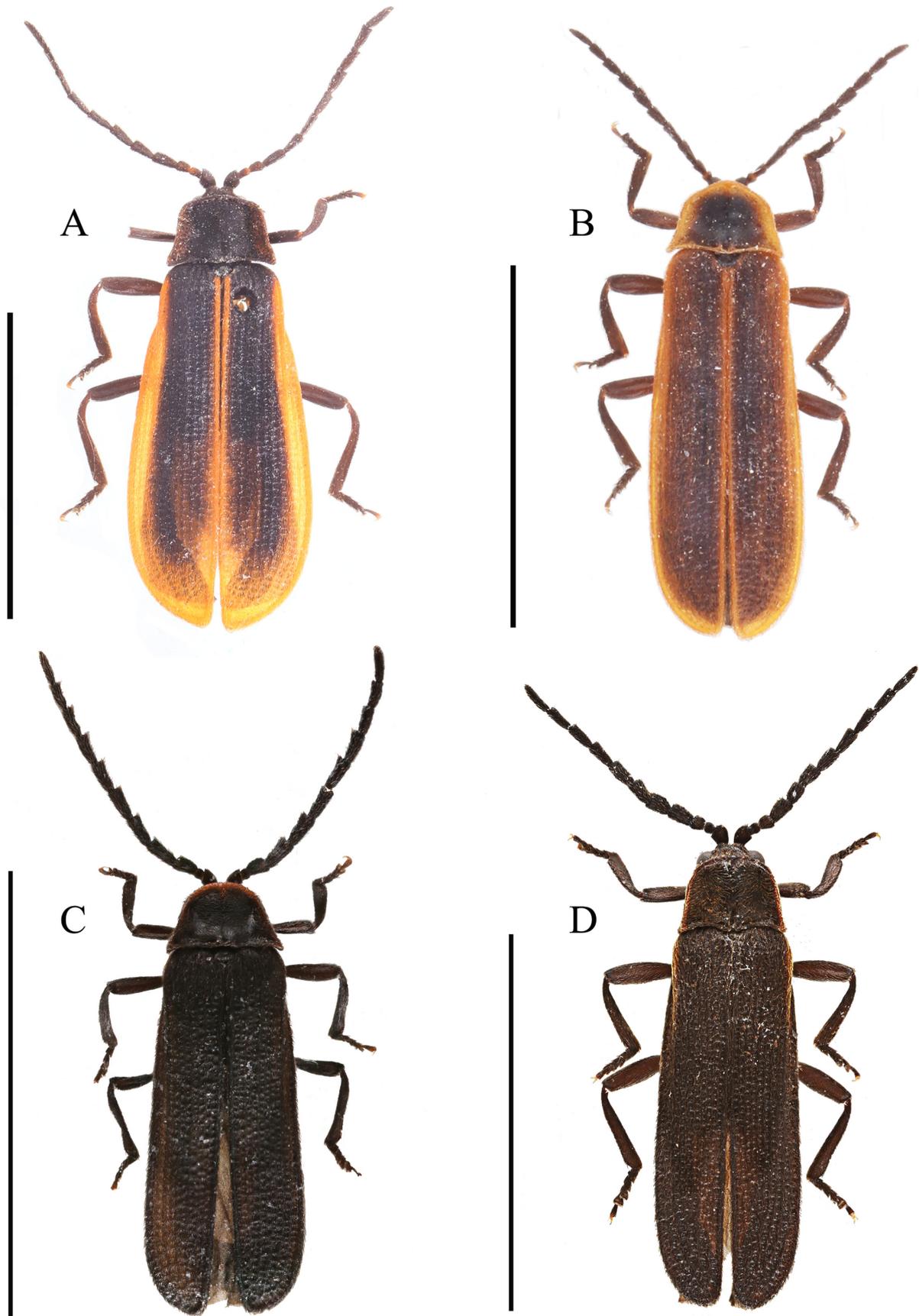


FIGURE 1. General appearance, dorsal view. A, B. *Plateros busynskyi* (Bocáková, 1997). C. *P. medogensis* sp. nov. D. *P. yini* sp. nov. A, C, D. Male. B. Female. Scale bars: 5.0 mm.

Pronotum nearly trapezoidal, width 1.8× length, anterior margin slightly arched forward, lateral margins faintly sinuate and diverging posteriorly, posterior margin nearly straight, anterior angles obtusely rounded, posterior angles sharp and distinctly projecting postero-laterally.

Elytra widened posteriorly, length 3.2× width, 5.4× longer than pronotum along the midlength, with primary and secondary costae slightly developed.

Aedeagus (Fig. 2D–F): phallus simple and slender, 3.0× longer than phallobase, progressively widened apically, with subrounded apex in dorsal and ventral views (Fig. 2D, E), distinctly bent dorsally in middle point in lateral view (Fig. 2F).

**Female.** Unknown.



**FIGURE 2.** Aedeagi of *Plateros busynskyi* (Bocáková, 1997) (A–C), *P. medogensis* sp. nov. (D–F), and *P. yini* sp. nov. (G–I). A, D, G. Dorsal view. B, E, H. Ventral view. C, F, I. Lateral view. Scale bars: 0.5 mm.

**Etymology.** This specific name refers to the type locality, Mèdog, Xizang, China.

**Distribution.** China (Xizang).

***Plateros yini* Yang, Fang & Wang, sp. nov.**

(Figs 1D, 2G–I)

**Type material. HOLOTYPE:** CHINA: ♂ (MHBU), Xizang, Nyingchi, Bomê County, Tangmai, 19–20.VII.2019, Z.-W. Yin leg.

**Diagnosis.** This species looks like *P. medogensis* sp. nov. in the general appearance (Fig. 1D vs. Fig. 1C), but can be easily differentiated from the latter by the shape of pronotum (Fig. 1D vs. Fig. 1C) and aedeagus (Fig. 2G–I vs. Fig. 2D–F). It is also similar to *P. busynskyi* in the shape of aedeagus, but can be distinguished from each other in the details (Fig. 2G–I vs. Fig. 2A–C), as well as their contrasting body coloration (Fig. 1D vs. Fig. 1A, B).

**Description.** Body length 6.0 mm (holotype), width at humeri 1.6 mm (holotype).

**Male** (Fig. 1D). Body black, pronotum with brown lateral margins, elytra with a pair of narrow brown stripes extending from humeri to basal one-third part. Surface covered with short dark brown pubescence.

Head dorsally flat, antennal tubercles indistinct, eyes small, interocular distance 1.6× eye diameter. Antennae serrate, reaching half-length of elytra when inclined, antennomeres III–IV triangular, length 1.1–1.2× width, III 1.5× longer than II, IV 2.5× longer than II, VI 1.1× longer than V, VII 1.1× longer than VI, VII–X subequal in length, XI 1.1× longer than X.

Pronotum nearly trapezoidal, width 1.5× length; anterior margin slightly arched, lateral margins feebly diverging posteriorly, posterior margin faintly bisinuate, anterior angles obtusely rounded, posterior angles sharply projecting posteriorly. Scutellum nearly square, posterior margin slightly notched.

Elytra widened posteriorly, length 3.2× width, 5.2× longer than pronotum along the midlength, with primary and secondary costae faintly developed.

Aedeagus (Fig. 2G–I): phallus stout and approximately twice longer than phallobase, abruptly constricted near apex in dorsal and ventral views (Fig. 2G, H), forming into a ventral finger-like projection and a dorsal hook-like expansion which compressed and bent ventrally, with a pair of ridges dorsally (Fig. 2G), nearly straight in lateral view (Fig. 2I).

**Female.** Unknown.

**Etymology.** The specific epithet is named after Professor Zi-Wei Yin, collector of the holotype.

**Distribution.** China (Xizang).

**Key to *Plateros* species from Xizang, China**

1. Elytra black with yellow margins and suture (Fig. 1A, B); phallus lanceolate at apex with an oblique protuberance in dorsal and ventral views (Fig. 2A, B) ..... *P. busynskyi* (Bocáková, 1997)
- Elytra uniformly black, or with a pair of narrow brown stripes extending from humeri, never yellow at margins or suture (Fig. 1C, D), phallus unlike above in dorsal and ventral views (Fig. 2D, E, H, I) ..... 2
2. Pronotum more transverse, 1.8 times wider than long, with posterior angles distinctly projecting postero-laterally (Fig. 1C); phallus slender and 3.0 times longer than phallobase, progressively widened apically in dorsal and ventral views (Fig. 2D, E), bent dorsally in middle point in lateral view, with simple apex (Fig. 2F) ..... *P. medogensis* sp. nov.
- Pronotum less transverse, 1.5 times wider than long, with posterior angles moderately projecting posteriorly (Fig. 1D); phallus stout and twice longer than phallobase, abruptly constricted near apex in dorsal and ventral views (Fig. 2G, H), forming a ventral finger-like projection and a dorsal compressed expansion that hooked and bent ventrally, nearly straight in lateral view (Fig. 2I) ..... *P. yini* sp. nov.

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## 西藏短沟红萤属 *Plateros* 二新种记述 (鞘翅目: 红萤科)

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**摘要:** 记述中国西藏短沟红萤属 *Plateros* 二新种, 分别命名为墨脱短沟红萤 *P. medogensis* sp. nov. 和殷氏短沟红萤 *P. yini* sp. nov.; 附成虫整体和雄外生殖器特征图; 此外, 首次报道布氏短沟红萤 *P. busynskyi* 的雌性特征; 提供了西藏短沟红萤属种检索表。

**关键词:** 红萤;  $\alpha$ 分类学; 新种; 喜马拉雅地区