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## Description of previously unknown male of *Pedostrangalia signifera* (Coleoptera, Cerambycidae, Lepturinae) from Hubei, China

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### Abstract

Previously unknown male of *Pedostrangalia signifera* Holzschuh, 1999 is described here for the first time based on specimen collected from Shennongjia Forestry District, Hubei, China. Detailed diagnosis, description and illustration are presented.

**Keywords:** New discovery, lepturini, shennongjia

### Introduction

*Pedostrangalia signifera* Holzschuh, 1999 was originally described based on only one female specimen from Shennongjia Forestry District, Hubei. Since then, this rare creature has never been discovered.

Recently, four males and one female specimens of *P. signifera* Holzschuh, 1999 from the same place was discovered, and it made us have the opportunity to describe and illustrate the male for the first time.

### Material and methods

All habitus photographs were taken with a Canon 7D Mark II digital camera equipped with a Canon EF 100mm f/2.8L IS USM lens and genitalia photographs were taken with a Leica DFC450 digital camera mounted on a Leica M205A microscope. Photographs of genitalia were taken while submerged in water or glycerin. All photographs were edited using Adobe Photoshop CS6 software. The genitalia were prepared by first soaking the whole beetle in boiling water for several minutes, then opening the abdomen from the abdominal apex along the dorsopleural margin. The genitalia were then removed with fine forceps and ophthalmic scissors, and later cleared in 10% KOH at 80–100°C for several minutes. The specimens are deposited in the Entomological Museum, Yangtze University, Jingzhou, Hubei, China.

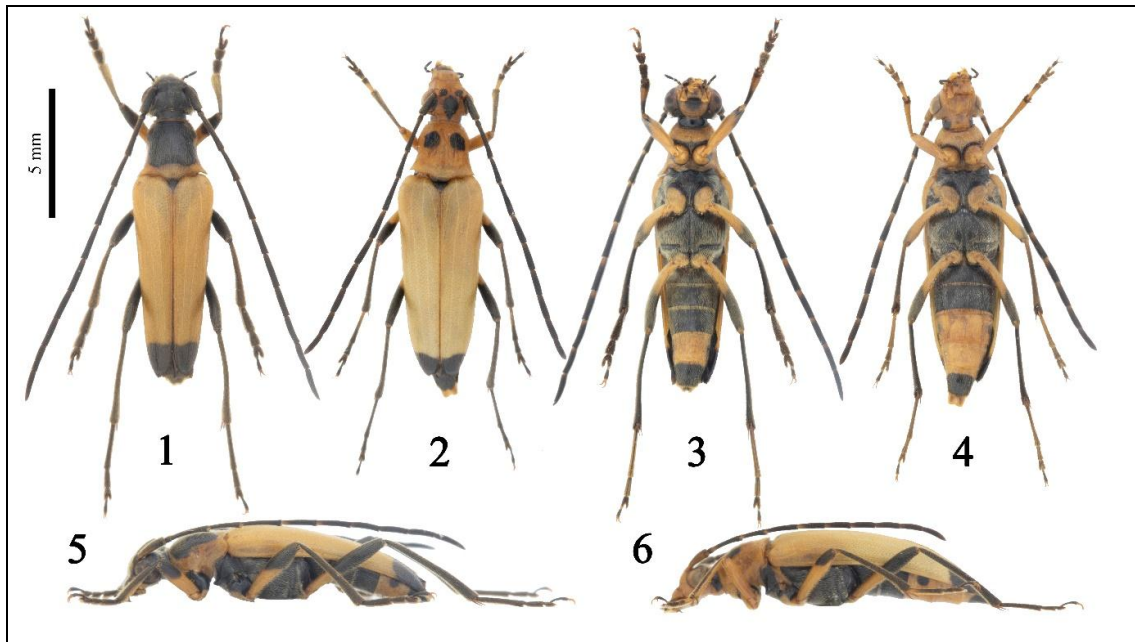
### *Pedostrangalia signifera* Holzschuh, 1999 (Figs 1–12)

*Pedostrangalia signifera* Holzschuh, 1999: 13, fig. 14 (holotype female). Löbl & Smetana, 2010: 110; Chen *et al.*, 2019: 54.

### Description of male (Figs 1, 3, 5)

Body length 10.53–10.58 mm (measured from vertex to elytral apices), humeral width 3.04–3.07 mm (measured across humeri).

Body mostly black. Head black except for apical half of mandibles, apical margin of labrum and clypeus, gena yellowish brown. Antennae black except for extreme base of antennomeres VI–XI yellowish brown, sometimes ventral surface of scape yellowish brown. Pronotum mostly black, basal 1/6 and posterior margin yellowish brown. Scutellum black. Elytra yellowish brown, apical 1/6 black. Ventral surface mostly blackish brown. Abdominal ventrites blackish brown except for ventrite IV yellowish brown with a blackish brown spot on each side (sometimes the blackish brown spots are relatively larger). Legs blackish brown, trochanters, apical half of ventral surface of protibiae, basal half and mostly of ventral surface of profemora, basal half of ventral surface of mesofemora and metafemora which are yellowish brown.



**Fig 1-6:** *Pedostrangalia signifera* Holzschuh, 1999. 1–2. dorsal view; 3–4. ventral view; 5–6. lateral view. 1, 3, 5. male; 2, 4, 6. female.

Head with frons transverse, finely punctured, with a smooth median furrow extending to vertex; with a triangular impunctate area just behind the clypeus, tempora short, eyes well developed, nearly hemispherical, finely faceted, eye diameter longer than gena. Antennae longer than body, about 1.09 times as long as body, with apical two antennomeres exceed the elytral apex; scape shorter than antennomere IV, antennomere III longer than IV, remaining antennomeres gradually decreasing in length, antennomere XI slightly arcuate, slightly shorter than VIII and slightly longer than IX. Pronotum elongate trapezoid with weakly arched sides, slightly longer than basal width, slightly swollen before the middle, apical margin obviously narrower than basal margin, about 0.59 times as wide as basal width, disc moderately convex, basal margin bisinuate, hind angles triangularly

produced in dorsal view and covering elytral humeri, disc densely and finely punctured, with a narrow longitudinal impunctate median area near base. Scutellum triangle.

Elytra long and slender, about 2.40 times as long as humeral width, straightly narrowed apically, dehiscent from apical 1/7, apex subrounded or slightly obliquely truncate; disc densely and finely punctured, each elytron with four thin longitudinal lines, the middle two extend from the base to the apex.

Ventral surface sparsely, finely punctured. Legs long and slender, femora weakly clavate, metafemora almost reaching posterior margin of fourth abdominal segment. First metatarsal segment obviously longer than following two segments combined, about 1.50 times as long as following two segments combined.



**Fig 7-12:** Genitalia of *Pedostrangalia signifera* Holzschuh, 1999. 7–9. Tegmen and median lobe; 10. Spiculum gastrale and spiculum relictum; 11–12. Tergite VIII; 7, 10, 11. ventral view; 9, 12. dorsal view; 8. lateral view. Scale: 1.0 mm.

Male terminalia in figures 7–12. Tergite VIII about 1.28 times as long as wide, apex slightly emarginate, apical half subtrapezoidal, sparsely covered with short brown setae, slightly long and dense at middle, basal half glabrous; spiculum gastrale slightly longer than ringed part of tegmen; spiculum relictum slightly longer than a half of spiculum gastrale; paramere moderately long, about 1.28 times as long as width, apex with a few sparse long setae; median lobe moderately curved in lateral view, slightly longer than tegmen; median struts about 0.33 times as long as median lobe, apex of ventral plate roundly tapered.

Material examined. 3♂♂, Hubei, Shennongjia Forestry District, Hongping Town, Yousongping, E 110°20'20" N 31°34'03" Alt. 1972m–2064m, June 22, 2019, coll. by Ping Wang; 1♂, Hubei, Shennongjia Forestry District, Dongxi village, E 110°09'01" N 31°34'82" Alt. 1557m, May 17, 2019, coll. by Ping Wang; 1♀, China: Hubei, Shennongjia Forestry District, Muyu Town, Qingtianpao, E 110°22'29" N 31°30'04", Alt. 1526m, May 22, 2019, coll. by Ping Wang.

Distribution: China, Hubei (Shennongjia Forestry District).

Habitat. The specimens were collected on white flowers of the small tree *Swida macrophylla* (Wall.) Soják in a sparsely forested and bushy area in Shennongjia Forestry District.

Remarks: Male similar to female, but a little different in color, the head and pronotum mostly blackish brown instead of mostly yellowish brown with blackish brown patches (figures 1–4); only ventrite IV mostly yellowish brown instead of ventrites III–IV mostly yellowish brown (figures 3–6).

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