

A new species in the genus *Strongylium* (Coleoptera: Tenebrionidae) from Zhejiang, China

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Abstract: *Strongylium* Kirby is one of the largest genera in the family Tenebrionidae. A new species belonging to this genus was found during our study of tenebrionid specimens from the Jiulong National Wetland Park, Zhejiang. The new species, *Strongylium jiulongense* Yuan & Wang **sp. nov.**, is described. The habitus, illustrations and diagnosis with *S. masumotoi* Yuan & Ren, 2006 are also presented.

Key words: Stenochiini; Stenochiinae; darkling beetles; taxonomy

浙江树甲属一新种记述（鞘翅目：拟步甲科）

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摘要: 树甲属是拟步甲科最大的属之一, 本文记述采自浙江丽水九龙国家湿地公园的树甲属 1 新种: 九龙树甲 *Strongylium jiulongense* **sp. nov.** 提供了该种整体图、特征图以及与益本树甲 *S. masumotoi* Yuan & Ren, 2006 的鉴别特征。

关键词: 树甲族; 树甲亚科; 拟步甲; 分类

Introduction

The genus *Strongylium* Kirby, 1819 of the tribe Stenochiini is a worldwide diverse group, including 98 species from China (Masumoto 1996; Bouchard *et al.* 2005; Yuan & Ren 2017; Iwan *et al.* 2020; Ke & Yuan 2021). It is one of the largest genera in the family Tenebrionidae. Species in this group are usually defined by body elongated, cylindrical, sometimes robust, rarely flat, head with protruding eyes, antennae and legs usually long and thin (Kaszab 1977), the adults are often collected at night from the trunk of trees because of their nocturnal habits and immature stages develop in decaying wood of broadleaf trees (Daggy 1946; Triplehorn & Spilman 1973; Doyen 1989). So far, there are four recorded species of *Strongylium* in Zhejiang, but none of them were known to occur in the Jiulong National Wetland Park, Zhejiang (Ren 2023). In this paper, an additional *Strongylium* species collected from the park is described as *S. jiulongense* Yuan & Wang **sp. nov.** Habitus, illustrations and the diagnostic comparison with *S. masumotoi* Yuan & Ren, 2006 are provided.

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Material and methods

Specimens were examined under a Nikon (SMZ 1270) dissecting microscope. Photographs were taken using a Canon EOS R5 camera, equipped with a Laowa® 25 mm F/2.8 2.5–5.0X Ultra Macro lens. Helicon Focus v. 8.2.2 Pro was used for image stacking. Measurements were taken using a Leica (M205 A) dissecting microscope and are given in millimeters. The male genitalia was dissected and cleared in warm 10% NaOH solution. After examination, it was transferred to a 0.1 mL centrifuge tube with fresh glycerine and placed below the pinned specimen. The terminology used in this study follows Masumoto (1999). The type specimens are deposited in the Chinese Academy of Sciences, Institute of Zoology, Beijing, China (IZCAS) and the Yan'an University Insect Collection, Yan'an, China (YAUC).

Taxonomy

Strongylium jiulongense Yuan & Wang sp. nov. (Fig. 1)

Description. Body length 7.8–10.7 mm.

Male. Body elongate elliptical; antennae, pronotum, scutellum and legs black, elytra dark red to black red. Head, pronotum sericeously shining, elytra strongly vitreously shining; antennomeres V–XI matte, antennomeres I–V with vitreous shine. Body almost glabrous.

Head irregularly punctate; clypeus with longitudinal, dense punctures, sometimes fused together, frontoclypeal suture arcuate, finely grooved, both sides not extending to anterior margin; genae laterally convex, densely punctate, each puncture with a short decumbent hair; frons very wide, moderately steeply declined anteriorly, densely punctate, sometimes fused with each other, longitudinally impunctate area in the middle; vertex with dense punctures, distance between eyes 0.95 times as wide as transverse diameter of an eye in dorsal view, eyes moderately big, weakly convex laterally; antennae stout, antennomere XI ovoid, reaching basal 1/5 of elytra, ratio of the length of antennomeres II–XI as: 0.16, 0.45, 0.38, 0.33, 0.35, 0.32, 0.34, 0.33, 0.34, 0.42.

Pronotum subquadrate, transverse, 1.27 times as wide as long, widest at middle, gradually narrowed anteriorly; anterior margin substraight, finely bordered, the border with punctures; lateral margins entirely bordered, the borders visible in anterior 1/2 from above, and with a pair of tubercles at the middle; posterior margin weakly bisinuous, bordered and rimmed, with a few punctures; dorsum weakly convex, disc very densely, largely and roundly punctate, and each puncture with a short decumbent hair in median, which is as long as the radius of the punctures. Scutellum elongated triangular, sparsely and finely punctate.

Elytra subparallel in basal 1/3, widest at apical 1/3, 2.04 times as long as wide, 4.08 times the length and 1.57 times the width of pronotum; dorsum nearly flattened, disc with rows of subovate punctures, which become larger antero-laterad, and become finer and striate posteriorly; intervals weakly convex, which become stronger in antero-lateral portions, and are also connected transversely with each another, sparsely scattered with microscopic punctures with microscopic and decumbent hairs; apices rounded.

Prosternum narrow between procoxae, longitudinally impressed, prosternal process steeply inclined, apices triangular, apex protruded upward; abdomen densely punctate,

longitudinally wrinkled, with pubescence which is denser and longer in apical portion of anal sternite, apex weakly truncate. Legs medium-sized, with decumbent hairs, tibiae straight, metatarsi with longitudinal punctures, femora and tibiae with short and decumbent hairs, without modifications, length ratio of metatarsomeres I–IV as: 0.37, 0.21, 0.23, 0.82.

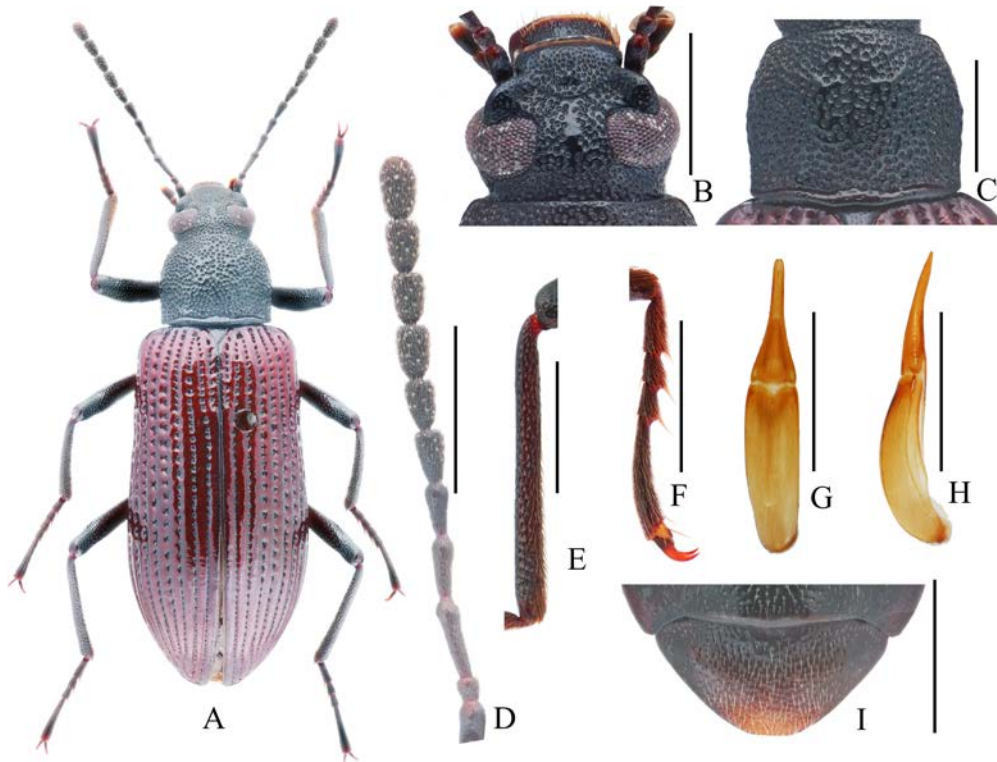


Figure 1. *Strongylium jiulongense* Yuan & Wang **sp. nov.**, holotype. A. Habitus, dorsal view; B. Head; C. Pronotum; D. Antennae; E. Metatarsus; F. Metatibia; G, H. Male genitalia, dorsal and lateral views; I. Ventrite V. Scale bars = 1 mm.

Male genitalia subfusiform in dorsal view, 1.90 mm in length, 0.35 mm in width, weakly curved at base in lateral view, apicale noticeable prolonged, 0.82 mm in width.

Female. Body larger than in male, antennae shorter and bolder.

Holotype. ♂ (IZCAS), **China**, Zhejiang, Lishui, Bihu, Jiulong Wetland, headlamp, 28.39290°N, 119.82099°E, 60.0 m, 02-VI-2023 N, Hongbin LIANG & Kai WANG leg.

Paratypes. 5♂5♀ (IZCAS), **China**, Zhejiang, Lishui, Bihu, Jiulong Wetland, headlamp, 28.39290°N, 119.82099°E, 60.0 m, 02-VI-2023 N, Hongbin LIANG & Kai WANG leg.;

1♂3♀ (IZCAS), **China**, Zhejiang, Lishui, Bihu, Jiulong Wetland, by net, 28.39290°N, 119.82099°E, 60.0 m, 03-VI-2023 d1, Hongbin LIANG & S. Bolkiboev leg.;

1♂1♀ (YAUC), **China**, Zhejiang, Lishui, Bihu, Jiulong Wetland, headlamp, 28.39290°N, 119.82099°E, 60.0 m, 02-VI-2023 N, Hongbin LIANG & Kai WANG leg.

Etymology. The specific epithet indicates the location of the holotype.

Remarks. This new species is similar to *S. masumotoi* Yuan & Ren, 2006 from Sichuan, but can be separated from the latter by body smaller, the elytra dark red to black red, elytra and metafemora uniform in color, without yellow patches; longitudinally impunctate area between eyes, without impression, anterior margin of pronotum finely bordered.

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