



## Taxonomy of the genus *Erymus* Bordoni (Coleoptera: Staphylinidae, Staphylininae, Xantholinini) in China with descriptions of two new species

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### Abstract

This paper studies the taxonomy of the genus *Erymus* Bordoni, 2002 (Coleoptera: Staphylinidae, Staphylininae, Xantholinini) from China. Two new species are described: *Erymus wufengensis* sp. n. from Hubei, and *E. gilvus* sp. n. from Hainan, Guangxi, and Guangdong provinces of China. The previously known four species of this genus are redescribed, and the identification key to all six Chinese species of the genus is provided. The type specimens of the new species are deposited in the Institute of Zoology, Chinese Academy of Sciences (IZ-CAS).

**Key words:** Coleoptera, Staphylinidae, Xantholinini, *Erymus*, new species, identification key, distribution map

### Introduction

The tribe Xantholinini is a large rove beetle group of more than 75 genera and was considered as one of the six tribe-level taxa in the subfamily Staphylininae (Coleoptera: Staphylinidae) by most taxonomists (Assing 2000; Chatzimanolis *et al.* 2010; Herman 2001; Newton *et al.* 2000; Zhou 2005). The staphylinine genus *Erymus* Bordoni, 2002 that belongs to the tribe Xantholinini and is broadly distributed in the Oriental region, was described by Bordoni (2002). With some more species added later on, this genus comprised 25 species in the world fauna prior to this study. Of them, four species were recorded to occur in the territory of China: *L. gracilis* (Fauvel, 1895), *E. paramerum* Bordoni, 2005, *E. dalianus* Bordoni, 2006, and *E. sinicus* Bordoni, 2009. Here we describe two new species: *Erymus wufengensis* sp. n. from Hubei, and *E. gilvus* sp. n. from Hainan, Guangxi, and Guangdong. A key to all six species of *Erymus* presently known from China is also provided, as well as their distributions are mapped. The type specimens of the new species are deposited at the Institute of Zoology, Chinese Academy of Sciences (IZ-CAS).

### Material and methods

**Specimens and collections.** Specimens were relaxed in warm water (60 °C) for about 5–8 hours, then cleared in 10% KOH for 5 minutes, and transferred in 75% alcohol. Cleared specimens were dissected for observing morphological details of the mouthparts, terminal abdominal segments, differences between sexes, aedeagus, etc. After examination, the body parts were stored permanently in glycerine for future studies. Observations and drawings were done under a compound microscope (ZEISS Stemi 2000-C). Specimens used in this study come from the following collections: **IZ-CAS**, Institute of Zoology, Chinese Academy of Sciences; **CS**, Collection of Michael Schülke, Germany; **CJ**, Collection of Jiri Janak, Czech Republic; **MHNG**, Muséum d'Histoire Naturelle, Genève (Giulio Cuccodoro); **NMW**, Naturhistorisches Museum Wien, Austria (Harald Schillhammer).

**Terminology and abbreviations.** In describing morphological features, we follow Smetana (1982), Smetana & Davies (2000), Bordoni (2002), Solodovnikov & Newton (2005), Zhou & Zhou (2013), and Zhou, Bordoni, &

wider than III, subequal in length of 0.06 mm; last antennomere medium in length, 0.14 mm, longer than length of two preceding antennomeres combined.

**Neck.** Medium width (0.22 mm), slightly wider than 1/3 of head width.

**Pronotum** (Fig. 2C). Subrectangular, distinctly elongate (PL to PW ratio 1.6), distinctly longer and narrower than head. Widened anteriorly, lateral margins quite sinuate, anterior angles obviously expanded outwards, posterior angles broadly rounded, with widest at anterior 1/4 and narrowest at posterior 1/4. Dorsal surface extensively bearing micropunctures, without any microsculpture. Each side bearing a pair of admedian row of 6–7 small punctures, a pair of lateral row of 6–7 punctures, and also with few irregular punctures distributing near anterior margin.

**Mesoscutellum.** Glossy, covered with quite shallow microstriae, and with a pair of small punctures at apical 1/3.

**Elytra** (Fig. 2C). Subquadrate (EL to EW ratio 1.1), slightly shorter than pronotum, but distinctly wider. Humeri well-developed, lateral margins slightly dilated outwards, hind margin distinctly rounded. Integument glossy, flattened, without microsculpture, each side with 2–3 rows of small punctures along median suture, a row along midwidth, and also with 1–2 rows of tiny punctures.

**Abdomen.** Cylindrical, broadest at segment VI. Tergites III–VII glossy, each segment covered with obvious transverse microstriae, also with small scattered punctures, interspaces between punctures approximately the diameter of 2–3 punctures, and punctures slightly denser on tergites VI and VII. Each tergite with a shallow basal impression near anterior margin; surface between two basal transverse carinae glossy, also covered with microstriae, and rarely with tiny punctures. All abdominal sternites glossy, with microstriae and punctures as those on tergites.

**Distribution.** China (Fujian).

**Remarks.** This species is distinguished from its congeners by the combination of the following characters: body color, distance between punctures on head, male sternite IX and basal bulb of aedeagus.

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