

# A new species of *Ohirathous* Han & Park (Coleoptera: Elateridae: Dendrometrinae) from China, with a key to Chinese species

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**Abstract:** *Ohirathous emarginatus* sp. nov. is described and illustrated from China. A key and a checklist of the known species in this genus, together with a distribution map of two *Ohirathous* species, are provided.

**Key words:** Elateroidea; taxonomy; key

中国大平叩甲属一新种及种检索表（鞘翅目：叩甲科：齿胸叩甲亚科）

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**摘要:** 记述中国凹缘大平叩甲 *Ohirathous emarginatus* sp. nov., 提供了形态特征图以及种检索表和名录及分布图。

**关键词:** 叩甲总科; 分类; 检索表

## Introduction

The genus *Ohirathous* was established by Han & Park in Han *et al.* (2012) from Taiwan (Nantou). It contained only the type species: *O. nantouensis* Han & Park, 2012 which was described based on a single female specimen. It is rarely collected and the structures of the bursa copulatrix is unique among members of the subtribe Dendrometrina. Since then, no other species had yet been discovered.

This genus is placed in the subfamily Dendrometrinae. It resembles *Scutellathous* Kishii by sharing the pent roof-shaped frons and the transversely broad frontal groove (Han *et al.* 2012). However, it is distinguished from *Scutellathous* by the different structures of the bursa copulatrix, the carinae on the hind angles of the pronotum, the proportions of the

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antennomeres 2 to 3, and the lobed 1st to 4th tarsomeres.

In this article, we describe a new species belonging to the genus *Ohirathous* from China based on a female specimen. The habitus and characteristics of this new species are illustrated. A comparison is made with the type species *O. nantouensis*. Distributions of these two species are mapped.

## Material and methods

Specimens studied in this article are deposited in the collection of Shenzhen Polytechnic, Shenzhen, China (SZPT). The terminology used mainly follows Costa *et al.* (2010). The classification follows the Bouchard *et al.* (2011) system. Descriptions and measurements were made under a stereomicroscope (Motic® SMZ-168). Photographs were made using a digital microscope (LY-WN-YH 3D system).

**Measurements.** Body length is measured along the midline from the anterior margin of the frons to the apex of the elytra; body width is measured across the broadest part of the body (the anterior two-thirds of the elytra); pronotal length is measured along the midline; pronotal width is measured at the broadest part (at the hind angles).

The specimen is mounted on plates. The genitalia was removed, cleaned and fixed under the body of the specimen in glycerol mounts. The procedure of making such mounts was described by Prosvirov & Savitsky (2011).

The studied specimens were collected by hand netting.

The type of this new species is marked with red labels indicating the type status (holotype), name of the species, and authors.

## Taxonomy

### Genus *Ohirathous* Han & Park, 2012

*Ohirathous* Han & Park, 2012: 47. Type species: *Ohirathous nantouensis* Han & Park, 2012, by monotypy.

**Diagnosis.** Body medium, subparallel-sided. Head with a triangular impression behind frontal margin; frontal margin well expanded ahead, rolling as a pent roof, not carinate; frontal groove transverse and broadly excavated. Antennae relatively short, reaching at most to the tips of pronotal hind angles; antennomere 3 elongate triangular, 1.8 times longer than antennomere 2, antennomeres 3 to 10 serrated; antennomere 4 shorter than antennomere 3. Pronotum elongate, quadrate, nearly parallel-sided, convex; anterior angles round; hind angles with a distinctly ridged carina extending to median part along lateral margins, upheaved apically; posterior margin with a small basal groove. Prosternum convex; anterior collar elongate, thickly carinated; prosternal process straightly elongated, but narrowed to apex; procoxal cavities moderately open to posterior; prosternal sutures simple. Scutellum subquadrate, shield-like; anterior margin truncate, complete. Legs slender, 1st to 4th tarsomeres lobed ventral-apically, respectively. Elytra elongate; humeral mucro prominent; striae punctuated, shallow; interstriae convex; apex rounded and simple.

**Distribution.** Taiwan (Nantou); new to Mainland China (Hubei) (Fig. 4).

### Key to species of the genus *Ohirathous* Han & Park

1. Body darker, especially on pronotum; frontal margin slightly emarginated median anteriorly; hind angles not divergent; interstriae on elytra clearly elevated, darker than striae..... *O. emarginatus* sp. nov.
- . Body more reddish; frontal margin straight; hind angles divergent; interstriae on elytra feebly convex, not darker than striae ..... *O. nantouensis* Han & Park

#### *Ohirathous emarginatus* Liu & Jiang sp. nov. (Figs. 1–4)

Description. Female (holotype; Fig. 1). Body length 16.6 mm, width 5.3 mm; middle size, almost parallel-sided (Fig. 1A), flattened dorsally (Fig. 1C) and a little shiny; color dusky reddish brown, but anterior margin of frons of head, hind angles of pronotum reddish brown, mandible, maxillary palpi, antennae and scutellum yellowish red; dorsal pubescence (Fig. 1A) golden yellow, short, dense, suberect, but longer, sparser toward posterior; ventral pubescence (Fig. 1B) more recumbent, thinner and sparser.

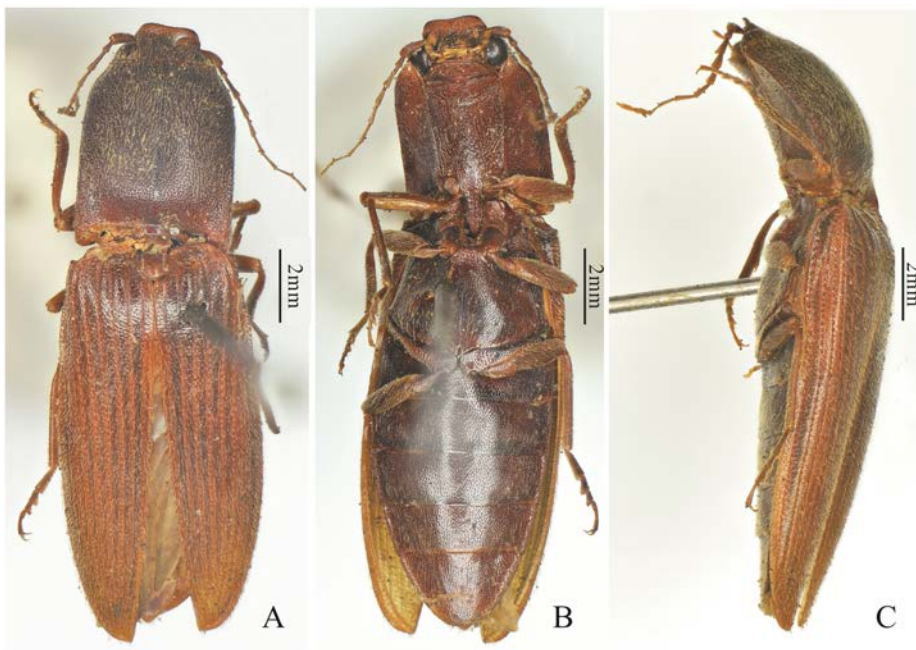


Figure 1. *Ohirathous emarginatus* sp. nov., ♀ (16.6 mm), holotype. A. Dorsal view; B. Ventral view; C. Lateral view.

Head. Declining, frons flat between eyes, with a shallow triangular middle depression; frontal edge rolling with pent roof shape, weakly emarginated medially (Fig. 2D); punctures obscure, dense, umbilicate, becoming larger, denser, coarser to front; surface with relatively sparse, long, subrecumbent and golden yellow pubescence (Fig. 2E), anterior margin strongly thickened and protruding well above clypeus, frontal groove transversely broad but not deeply excavate. Eyes large, bulbous, width across eyes slightly narrower than anterior margin of pronotum. Mandible well developed, incurved, bidentate. Last segment of maxillary palpus hatchet-like, about 1.5 times times as long as its broadest width. Labrum less transversely ovate, surface unevenly, coarsely and rugosely punctate. Antennae (Fig. 2B) just reaching tips of the hind angles of pronotum, clothed with yellowish short pubescence, antennomere 3 to 10

acutely serrate, indistinctly narrowing from antennomere 4; antennomere 1 robust, longest, subclavate; antennomere 2 obconic, 1.6 times longer than wide; antennomere 3 longest, elongate triangular, 1.8 times longer than 2nd and 1.2 times longer than 4; antennomere 9 shortest; antennomere 11 long, elliptical, 3.0 times longer than wide, slightly shorter than antennomere 3, abruptly and symmetrically constricted at apical third.

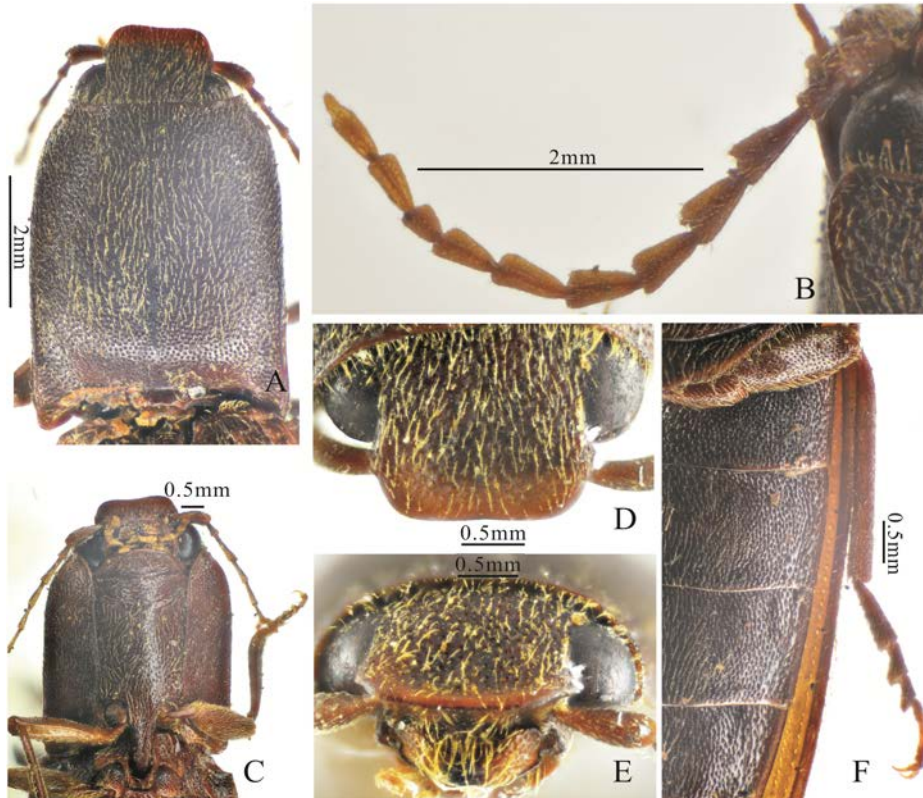


Figure 2. *Ohirathous emarginatus* sp. nov., ♀, holotype. A. Pronotum, dorsal view; B. Antenna, dorsal view; C. Prothorax, ventral view; D. Head, dorsal view; E. Head, frontal view; F. Sternites, ventral view.

Thorax. Pronotum rectangular, 1.2 times longer than wide, widest at base of hind angles, with a trace of a median longitudinal glabrous (or smooth) line (Fig. 2A); lateral margin parallel-sided, anterior one-sixth suddenly convergent, indistinctly sinuate at base of hind angle; hind angle broad, straightly divergent to posterior, obtusely pointed backwards, upheaved apically, with a long carina extending to middle part of pronotum along lateral margin; posterior margin with a small basal incisure at each base of hind angles; disc subconvex, weakly shiny, with dense punctures, interval between punctures less than half of its diameter and vaguely umbilicate medially, denser to contiguous and clearly umbilicate laterally (Fig. 3A). Prosternum (Fig. 2C) shiny, sparsely and irregularly punctate, with recumbent fine pubescence; anterior lobe short, widely arched, with sparse, coarse, rugose punctures; prosternal process straight, slightly narrowing to obtuse apex; prosternal sutures thin and straight; propleura densely punctate, hind margin of propleura nearly straight. The

punctures on meso- and metaventrite smaller and denser than those of prosternum. Mesocoxal cavities open to mesepimeron. Meso- and metaventrite smooth, covered with regular pubescence, and suture between them distinct and deep; metaventrite extremely narrowly furrowed on middle of hind two-thirds.

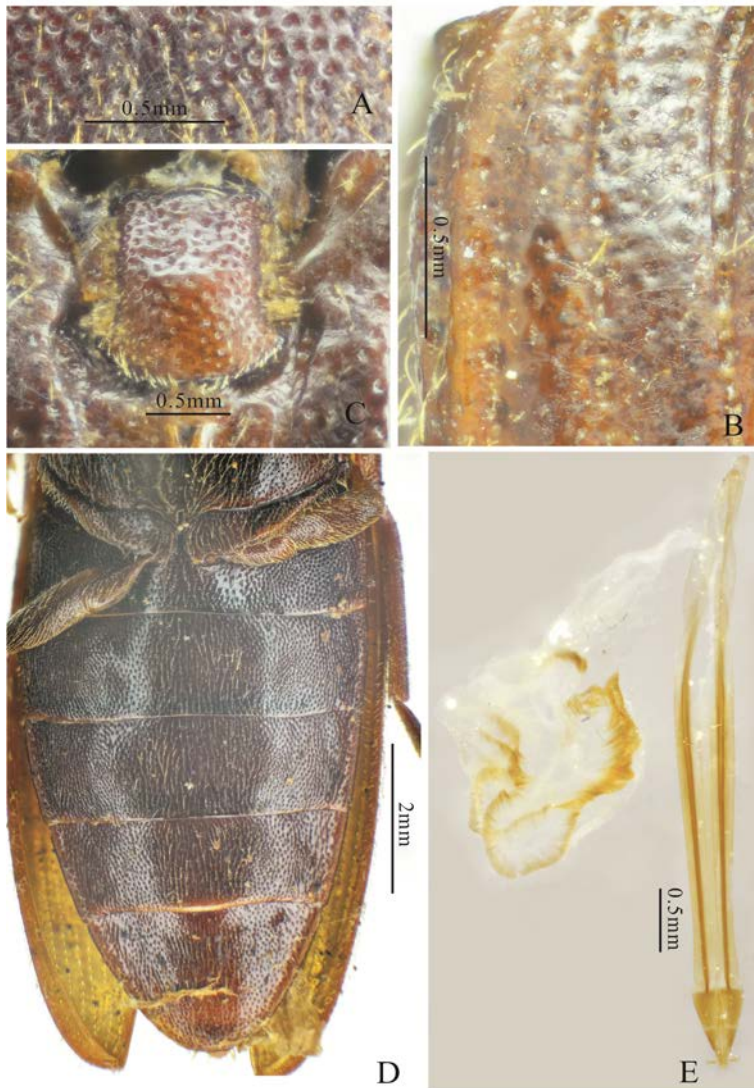


Figure 3. *Ohirathous emarginatus* sp. nov., ♀, holotype. A. Surface on pronotum, dorsal view; B. Surface on elytra, dorsal view; C. Scutellum, dorsal view; D. Abdomen, ventral view; E. Reproductive organ of female.

Scutellum. (Fig. 3C) 1.2 times longer than wide, elongate, convex medially, depressed anteriorly, hind margin arched, disc with small, uneven, sparse punctures, pubescence yellow.

Elytra. 2.2 times longer and 1.3 times wider than pronotum, longitudinally oviform, subconvex, widest at anterior one-fifth, parallel-sided, gradually narrowed from posterior third; striae (Fig. 3B) shallow with elongate strial punctures, the intervals between the



punctures about 2–3 times longer than its diameter, the interstriae clearly elevated, darker, smooth with small, irregular and sparser punctures, which are deeper basally and gradually shallower to disappearing at apex.

Legs. Slender (Fig. 2F); 1st to 4th tarsomeres lobed ventral apically, 1st indistinctly lobed, 2nd clearly lobed to middle of 3rd, 3rd with largest lobe, 4th with a small lobe; 1st to 4th tarsomeres becoming sequentially shorter, 5th tarsomeres longest; claws simple. Metacoxal plate shaped as in Fig. 3D; pubescence denser than abdomen; inside half parts subparallel-sided, then abruptly but gradually narrowing to lateral.

Abdomen. Surface of sternites with regular and even punctures and pubescence; 7th sternite semicircular, 1.6 times wider than long.

Female genitalia. Ovipositor of female reproductive organs triangular apically, with styli; bursa copulatrix subovate, with two small thorny plates basally and one circular thorny line girded wholly (Fig. 3E).

Male. Unknown.

Larva. Unknown.

**Holotype.** ♀, No. 20180410. **China**, Tongshan (Jiugongshan), Hubei, 1982, Qishan ZHANG leg.

**Etymology.** The specific epithet “*emarginatus*” refers to its slightly emarginated frontal margin.

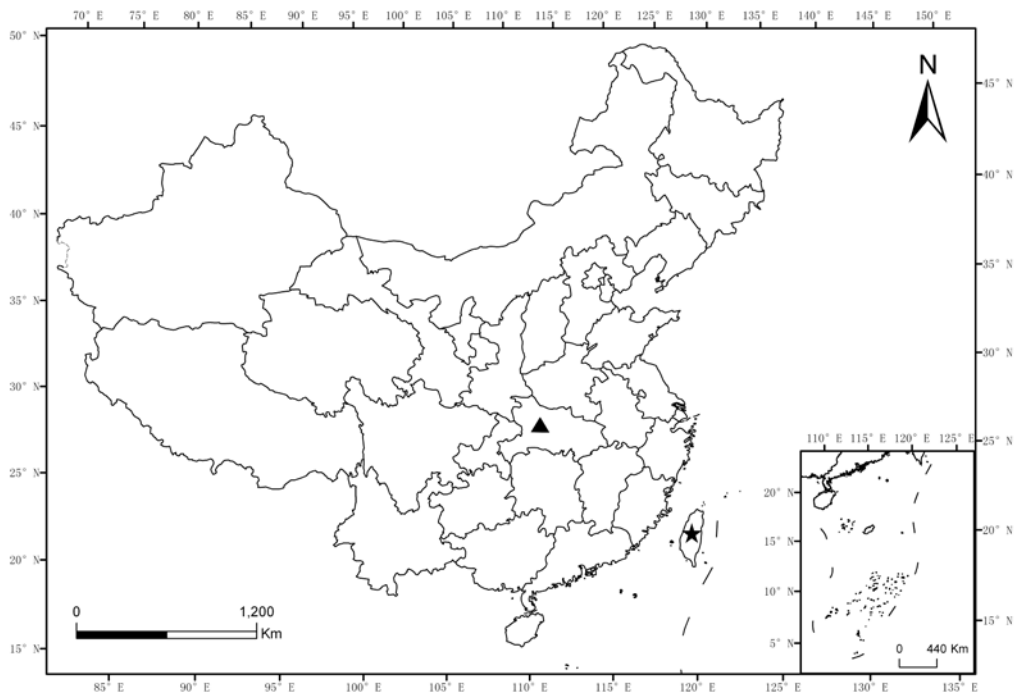


Figure 4. Distribution map of *Ohirathous* Han & Park, 2012. ▲: *O. emarginatus* sp. nov.; ★: *O. nantouensis* Han & Park, 2012.

Distribution. China (Hubei) (Fig. 4).

Diagnosis. This new species resembles the type species, *Ohirathous nantouensis*, but can

be separated from the latter by the following: antenna is longer (reaching tips of pronotal hind angles) and more acutely serrate (the latter is shorter, reaching to the base of pronotal hind angles and weakly serrate); interstriae clearly elevated, darker (the latter is feebly convex, and not dark); body colour is darker, especially on pronotum (the latter is more reddish); frontal margin is slightly emarginated median-anteriorly (the latter is rather straight); hind angles are not divergent (the latter is divergent); and prosternal process is obtuse apically (the latter is more or less pointed).

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