



Taxonomy of the genus *Osorius* Guérin-Ménéville (Coleoptera: Staphylinidae, Osoriinae) from China

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Abstract

This paper studies the taxonomy of the genus *Osorius* Guérin-Ménéville, 1829 (Coleoptera: Staphylinidae, Osoriinae) and reports 10 new species and three new records from China: *Osorius depressicapitatus* sp. nov. (Yunnan and Xizang), *O. guizhouensis* sp. nov. (Guizhou), *O. huangi* sp. nov. (Hunan), *O. limatidepressus* sp. nov. (Sichuan), *O. micromidas* sp. nov. (Yunnan), *O. minutoserratus* sp. nov. (Yunnan), *O. rectomarginatus* sp. nov. (Yunnan, Guangxi, Hainan, Fujian, Guangdong and Xizang), *O. striolatus* sp. nov. (Hunan and Guangdong), *O. trichinosis* sp. nov. (Guizhou and Zhejiang), *O. tubero capitatus* sp. nov. (Hubei), *O. aspericeps* Fauvel, 1905, new record of China (Yunnan, Sichuan, Xizang and Zhejiang), *O. frontalis* Fauvel, 1905, new record of China (Sichuan), and *O. punctulatus* Motschulsky, 1857, new record of China (Yunnan and Fujian). The number of the Chinese *Osorius* species is thus increased to 21 in total. The paper provides line drawings for 21 species and redescriptions for the species recorded for the first time in China. A key to Chinese species is also included.

Key words: Coleoptera, Staphylinidae, Osoriinae, *Osorius*, new species, China

Introduction

The rove beetle genus *Osorius* Guérin-Ménéville, 1829 (Staphylinidae: Osoriinae) consists of species with xylophilous living style. The cylindrical body form can be considered as adaptation to life under the bark of dead trees. The species of this genus are therefore another kind of "bark beetle". The beetles of this group are usually categorized into predators of the xylophages, but further studies are required to determine what their foods are (Thayer 2005). The members of the genus *Osorius* were recorded in most zoogeographical regions and thus the genus displayed a cosmopolitan distribution patterns (Herman 2001). After the erection of the genus *Osorius* by Guérin-Ménéville (1829) based on the only-included species *Osorius brasiliensis* Guérin-Ménéville, 1829, 276 species were described before this study and 8 ones were recorded to occur in China (Herman 2001). All the Chinese species were described by Bernhauer (1922, 1927, 1934, 1939, 1940) and **Table 1** offers a brief history of their discoveries. Jingke Li (1993) reported two species in the northeastern China: *Osorius taurus* (Sharp, 1889) (cited as *tanrus*, mistake) and *O. chinensis* J. Li, 1993 (non Bernhauer, 1934, replaced by *O. jingkei* Herman, 2001). His report did not offer qualified descriptions, nor messages for specimens (as the type deposition institutions). His data could not be rechecked, so we did not include them in this paper.

In the tribe Osorini Erichson, some other genera were also recorded to occur in China, namely *Arpagonus*, *Holotrochus*, *Indosorius* and *Mimogonus*. Fagel (1958, 1959) studied the African and the Neotropical species of *Osorius* complex. He separated several genera from the *Osorius s.l.*, based mainly on the following characteristics: spine patterns at outer edge of protibia, with or without the spiral endophallus of the aedeagus and the development of elytra. Irmeler (2010) studied the Neotropical *Osorius* species and compiled an improved version of key to the genera of *Osorius* complex. Indeed, the genus *Osorius* is a much diverse group in China; its systematics and classification may be improved based on further strict phylogenetic analyses in the future. In this paper we used the conventional concept of the genus *Osorius*, as many other taxonomists did when they studied the Asian *Osorius* species (Shibata 1973, 1976; Naomi 1986; Herman 2001; Smetana 2004).