



<http://dx.doi.org/10.11646/zootaxa.4058.3.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:BE77C339-98DF-45C8-B0CD-16D2DD01217D>

Description of four new species related to *Fissocantharis novemexcavatus* (Wittmer, 1951) (Coleoptera, Cantharidae) from China

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Abstract

Four new species related to *Fissocantharis novemexcavatus* (Wittmer, 1951) are described, *F. safranekimima* **sp. nov.** (CHINA: Shaanxi), *F. septangula* **sp. nov.** (CHINA: Shaanxi), *F. guizhouensis* **sp. nov.** (CHINA: Guizhou) and *F. novemoblunga* **sp. nov.** (CHINA: Zhejiang, Anhui), which are illustrated with habitus and antennae of males, abdominal sternites VIII of females and genitalia of both sexes. A key for identification of the species of *F. novemexcavatus* species complex is presented.

Key words: taxonomy, Cantharidae, *Fissocantharis*, new species, China

Introduction

During our study on *Fissocantharis* Pic, 1921 (sensu Yang *et al.* 2009), some unknown species from China, which are similar to *F. novemexcavatus* (Wittmer, 1951) and *F. safranekei* (Švihla, 2004), were recently discovered. They are described here under the names of *F. safranekimima* **sp. nov.**, *F. septangula* **sp. nov.**, *F. guizhouensis* **sp. nov.** and *F. novemoblunga* **sp. nov.** These species are characterized by their deformed antennomeres IX of males, but can be easily differentiated from one another by the body coloration, shapes of aedeagus and middle antennomeres of males summarized in the following key.

Material and method

The studied material is preserved in the following collections, and the primary types were returned to the collections from which they were borrowed:

CAU	Entomological Museum of China Agriculture University, Beijing, China;
IZAS	Institute of Zoology, Chinese Academy of Sciences, Beijing, China;
MHBU	Museum of Hebei University, Baoding, China;
ZFMK	Zoologisches Forschungsmuseum Alexander Koenig, Bonn, Germany.

The method used in this study and description format follow that of Yang *et al.* (2015). Morphological terminology of female genitalia follows that of Brancucci (1980). The abbreviations in the figures are as follows, - ag: accessory gland; - di: diverticulum; - sd: spermathecal duct; - sp: spermatheca; - ov: median oviduct; - va: vagina.