



## Review of the *Stenothemus harmandi* species-group (Coleoptera, Cantharidae), with description of six new species from China

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### Abstract

The diagnosis of the *Stenothemus harmandi* species-group is summarized, and all species are reviewed and keyed. *S. harmandi* (Bourgeois, 1902) is redescribed and six new species are described, *S. fugongensis* sp. nov. (CHINA: Yunnan), *S. distortirudis* sp. nov. (CHINA: Xizang), *S. parallelus* sp. nov. (CHINA: Xizang), *S. septimus* sp. nov. (CHINA: Xizang), *S. leishanensis* sp. nov. (CHINA: Guizhou) and *S. laticollis* sp. nov. (CHINA: Xizang). Each species treatment is provided with photos of habitus of male and abdominal sternite VIII of female, and illustrations of aedeagus. Additionally, *S. subnitidus* Švihla, 2005, *S. holosericus* Švihla, 2005 and *S. orbiculatus* Švihla, 2005 are provided with supplementary descriptions and photos of abdominal sternites VIII of females. Distribution maps are provided for each species of the *S. harmandi* species-group.

**Key words:** Cantharidae, *Stenothemus harmandi* species-group, new species, China

### Introduction

The *Stenothemus harmandi* species-group was proposed by Švihla (2005). During our recent study, six new species of this group were recently discovered and are described here under the names of *S. fugongensis* sp. nov., *S. distortirudis* sp. nov., *S. parallelus* sp. nov., *S. septimus* sp. nov., *S. leishanensis* sp. nov. and *S. laticollis* sp. nov. Additionally, three previously known species, *S. subnitidus* Švihla, 2005, *S. holosericus* Švihla, 2005 and *S. orbiculatus* Švihla, 2005 are provided with descriptions of abdominal sternites VIII of females for the first time. The number of the species of *S. harmandi* species-group is increased from 4 to 10, which are mostly distributed in the Himalayan area and southwestern China. With the increasing number of the species, the identification key for this group is necessary to be updated here.

In the present study, the characters of abdominal sternite VIII of the female are emphasized because they differ among the species, and the laterophyse of aedeagus is found to be different in some species, not all in the same shape as indicated by Švihla (2005). Also, some more common and new characters involving the antenna, abdominal tergite VIII and sternite VIII of the female, are summarized in the diagnosis of the *S. harmandi* species-group.

### Material and methods

The material studied is preserved in the following collections, and the primary types were returned to the collections from which they were borrowed or were otherwise deposited in public museums.

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## References

- Bourgeois, J. (1902) Trois nouvelles espèces de Malacodermes de l'Himalaya. *Bulletin du Muséum d'Histoire Naturelle*, 8, 426–427.
- Bourgeois, J. (1907) Sur quelques Malacodermes de l'Inde. *Annales de la Société Entomologique de Belgique*, 51, 291–293.
- Okushima, Y. (1999) Cantharidae collected by the Hokkaido University Expeditions to Nepal Himalaya (Coleoptera). *Insecta Matsumurana*, 56, 51–68.
- Pic, M. (1920) Nouveautés diverses. In: *Mélanges Exotico-Entomologiques*, Fasc. 32, pp. 1–28.  
<http://dx.doi.org/10.5962/bhl.title.52304>
- Švihla, V. (2005) New taxa of the subfamily Cantharinae (Coleoptera: Cantharidae) from south-eastern Asia with notes on other species II. *Acta Entomologica Musei Nationalis Pragae*, 45, 71–110.
- Wittmer, W. (1974) Zur Kenntnis der Gattung *Stenothemus* Bourg. (Col. Cantharidae). *Mitteilungen der Schweizerischen Entomologischen Gesellschaft*, 47 (1–2), 49–62.