



<http://dx.doi.org/10.11646/zootaxa.4018.4.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:0C09F36F-CD66-4D51-9BA5-CA0B61C7D25F>

## Three new species of the genus *Xiphidiopsis* Redtenbacher, 1891 (Orthoptera: Tettigoniidae: Meconematinae) in China

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### Abstract

The article reported three new species of the genus *Xiphidiopsis* Redtenbacher, 1891 in China: *Xiphidiopsis* (*Xiphidiopsis*) *minorincisus* Han, Chang & Shi **sp. nov.**, *Xiphidiopsis* (*Xiphidiopsis*) *protensus* Han, Chang & Shi **sp. nov.** and *Xiphidiopsis* (*Xiphidiopsis*) *anisolobulus* Han, Di & Shi **sp. nov.** The type material is deposited in the Museum of Hebei University, Baoding, P. R. China.

**Key words:** Tettigoniidae, Meconematinae, *Xiphidiopsis*, new species, China

### Introduction

The genus *Xiphidiopsis* was established by Redtenbacher in 1891, with type species *Xiphidiopsis fallax* Redtenbacher, 1891. It now comprises four subgenera, i.e. *Xiphidiopsis* Redtenbacher, 1891, *Zaxiphidiopsis* Gorochov, 1993, *Dinoxiphidiopsis* Gorochov, 1993 and *Bhuxiphidiopsis* Ingrisch, 2002. About 80 species are recorded (Eades *et al.*, 2015), of which about 20 species are distributed in China (Uvarov, 1933; Ebner, 1939; Tinkham, 1944; Bey-Bienko, 1962; Xia & Liu, 1990, 1992; Gorochov, 1993, 1998; Liu & Bi, 1994; Shi & Zheng, 1995; Shi & Chen, 2002; Shi & Du, 2006; Wang, Liu & Li, 2015).

This paper presents a generic diagnosis of the genus *Xiphidiopsis*, and describes three new species in China, accompanying photographs of *Xiphidiopsis* (*Xiphidiopsis*) *bituberculata* Ebner, 1939 and details of specimens examined. The type material is deposited in the Museum of Hebei University, Baoding, P. R. China.

The following conventions were adopted for specimen measurements:

Body—the distance from apex of fastigium verticis to posterior margin of tenth abdominal tergite; tegmen—the distance from base of tegmen to apex; postfemur—the distance from base of postfemur to apex of genicular lobe; ovipositor—distance from the base of subgenital plate to apex of ovipositor.

### Genus *Xiphidiopsis* Redtenbacher, 1891

*Xiphidiopsis* Redtenbacher, 1891. *Ver. der Zool.-Bot. Ges. Wien*, 41: 333; Tinkham, 1943. *Notes d'Entomologie Chinoise*, 10 (2), 40; Tinkham, 1944. *Proc. U.S. Nat. Mus.*, 94, 505; Tinkham, 1956. *Trans. Amer. Entomol. Soc.*, 82, 1; Bey-Bienko, 1962. *Trudy. Zool. Inst., Akad. Nauk SSSR, Leningrad*, 30, 133; Bey-Bienko, 1971. *Entomological Review*, 50, 473; Gorochov, 1993. *Zoosyst. Rossica*, 2(1): 64; Kevan, & Jin, 1993. *Tropical Zoology*, 6, 253; Gorochov, 1998. *Zoosyst. Rossica*, 7 (1), 101; Gorochov, 2008. *Proc. Zool. Inst., Russian Acad. Sci.*, 312(1–2), 27.

**Generic diagnosis.** Body small. Head hypognathous; fastigium verticis conical, with a longitudinal sulcus dorsally; eyes globular, protruding forwards; maxillary palpi long, apical segment almost equal to subapical one, apex slightly widened. Pronotum short, humeral sinus comparatively shallow. Thoracic auditory spiracles completely exposed. Tegmina narrowly elongated, surpassing apices of postfemora, apices rounded; hind wings a