



Review of the genus *Phlugiolopsis* Zeuner, 1940 (Orthoptera: Tettigoniidae: Meconematinae) from China

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Abstract

This paper reviews the genus *Phlugiolopsis* Zeuner, 1940, and describes 5 new species from China, *Phlugiolopsis pectinis* sp. nov., *Phlugiolopsis tribranchis* sp. nov., *Phlugiolopsis digitusis* sp. nov., *Phlugiolopsis trullis* sp. nov. and *Phlugiolopsis adentis* sp. nov. A key to the species and distributional data in China are given. The type specimens are deposited in the Museum of Hebei University.

Key words: *Phlugiolopsis*, Meconematinae, new species, China, distribution

Introduction

The genus *Phlugiolopsis* was erected by Zeuner (1940) with type species *Phlugiolopsis henryi* Zeuner, 1940 (type locality: the Royal Botanic Gardens, Kew, London, England). Yamasaki (1986) complemented the generic diagnosis, reported 1 new species, *Phlugiolopsis yaeyamensis* Yamasaki, 1986 (type locality: Ryukyu Islands), and transferred *Xiphidiopsis minutus* Tinkham, 1943 into the genus. Xia & Liu (1993) reported 3 new species from Wuling mountains area of Southwestern China, namely: *Phlugiolopsis fallax* Xia & Liu, *Phlugiolopsis brevis* Xia & Liu and *Phlugiolopsis tuberculata* Xia & Liu. *Phlugiolopsis platycata* Shi & Zheng (type locality: Emei Mountain, Sichuan, China) as new species was reported by Shi & Zheng (1994a). Shi & Ou (2005) studied the genus *Phlugiolopsis*, described 1 new species, *Phlugiolopsis yunnanensis* Shi & Ou, and transferred *Acyrtaspis jinyunensis* Shi & Zheng, 1994 into the genus.

Liu, Zhou & Bi (2008) transferred *Phlugiolopsis platycata* Shi & Zheng, 1994 to the genus *Acosmetura*. We examined the specimens which were collected from type locality in recent years. The male genitalia is strongly sclerotized, therefore, we agree with Liu, Zhou & Bi's opinion.

Liu & Zhang (2001) considered *Phlugiolopsis fallax* Xia & Liu a synonym of *Phlugiolopsis minuta* (Tinkham, 1943). We studied some specimens from Hunan and Guangxi, China, and found that the posterior margin of male subgenital plate and apex of female ovipositor of *Phlugiolopsis minuta* (Tinkham, 1943) varied somewhat.

Acyrtaspis was proposed as a new genus by Bey-Bienko (1955), with type species *Acyrtaspis grahami* (Tinkham, 1944) originally described as *Xiphidiopsis grahami* Tinkham, 1944. Gorochov (1993) reported 1 new species of the genus from Vietnam, namely *Acyrtaspis mistshenkoi* Gorochov, 1993. Liu (2000) considered that *Acyrtaspis* might be a synonym of *Phlugiolopsis* Zeuner, 1940. We also examined the topotypes of *Acyrtaspis grahami* and think the genus is a synonym of the latter.

Acyrtaspis mistshenkoi Gorochov, 1993 is similar to *Phlugiolopsis yunnanensis* Shi & Ou, 2005 and *Phlugiolopsis adentis* sp. nov. with male cerci, basal half with 1 dorsal lobe, ventral margin with 1 process; the apical half narrowing, curved dorsad. We think the species should belong to the genus *Phlugiolopsis*.

We checked the specimens of *Acyrtaspis jinyunensis* Shi & Zheng from the type locality. In some specimens the male genitalia is sclerotized and exposed. We deem that the species should be transferred to other genus.

Phlugiolopsis now includes 7 species, 5 species of which are distributed in China.

This paper includes a generic diagnosis of *Phlugiolopsis*, a key to the species, and 5 new species are described. The type materials are deposited in the Museum of Hebei University.