



Two new species of *Stenatkina* Young, 1986 from China with comparative notes on the female genitalia (Hemiptera: Cicadellidae: Cicadellini)

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Abstract

Stenatkina Young, 1986 is a sharpshooter genus that includes six species, three of them recorded from China. In this paper, two new species, *S. moliensis* **sp. nov.** and *S. luteimacula* **sp. nov.** are added. A key is given to distinguish all species of the genus. Descriptions and illustrations of the male and female genitalia of the new species and of other Chinese species are provided. *S. heveli* Young is newly recorded from China. Comparative notes on the female genitalia within *Stenatkina* are provided. The preliminary results show that the female genitalia provide useful features for distinguishing *Stenatkina* species.

Key words: Membracoidea, Auchenorrhyncha, Cicadellinae, morphology, taxonomy, ovipositor

Introduction

The sharpshooter genus *Stenatkina* was established by Young (1986) for three species, with *S. fusiforma* Young, 1986 as its type species. *Stenatkina* was first recorded from China by Yang and Li (1999), who described a new species, *S. bimaculata*. At the same time, based on features of the male genitalia, they transferred *Paratkina angustata* Young, 1986 to *Stenatkina*. Later, Yang *et al.* (2007) studied the taxonomy of *Stenatkina*. They proposed the genus *Atkinoida* Cai, 2002 as a synonym of *Stenatkina* and described an additional new species, *S. albopennis* Yang. According to these data, six species of *Stenatkina* are now known, three of them recorded from China. The genus and the six known species were catalogued by McKamey (2007) and Wilson *et al.* (2009).

In this paper, two new species, *S. moliensis* **sp. nov.** and *S. luteimacula* **sp. nov.**, are described and illustrated. A key is given to distinguish all species of the genus. Descriptions and illustrations of the male and female genitalia of the new species are provided. *Stenatkina heveli* Young is recorded as new for China.

The female genitalia have yielded useful characters for the taxonomy of sharpshooters (Mejdalani 1998; Mejdalani & Silva 2010; Nielson 1965; Rodrigues & Mejdalani 2009), but the morphological diversity of the female genitalia is still poorly known when compared to our current knowledge of the male genitalia. A description of the female genitalia of *S. angustata* (Young, 1986), which were previously not treated in detail, and the first description of the female genitalia of *S. albopennis* Yang, 2007 are provided. Based on female specimens at hand, comparative notes on the female genitalia within *Stenatkina* are provided.

The genital structures of males and females were prepared according to the techniques described by Oman (1949) and Mejdalani (1998), respectively. The dissected parts are stored in microvials with glycerin and attached below the specimens. The morphological terminology adopted herein follows mainly Young (1986), except for that of the head (Dietrich 2005) and that of the female genitalia (Nielson 1965; Davis 1975). Use of the term gonoplac (= valvula III) and the names for the processes of the dorsal and ventral sculptured areas of the first ovipositor valvula follow Mejdalani (1998). All specimens studied are housed in the Institute of Entomology, Guizhou University, Guiyang, China (GUGC).