



## The genus *Jembra* Metcalf and Horton from Taiwan with descriptions of two new species and the nymph of *J. taiwana* sp. nov. (Hemiptera: Cercopoidea: Aphrophoridae)

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### Abstract

The genus *Jembra* Metcalf and Horton comprises five species from Taiwan and China. In this paper, the fauna of the genus from Taiwan is reviewed and includes three species. Two new species, *J. kuanae* sp. nov. and *J. taiwana* sp. nov., are described, and *J. inouyei* Matsumura is redescribed. The fourth and fifth instar nymph of *J. taiwana* sp. nov. is described for the first time. A dichotomous key for the identification of the five species of *Jembra* is also presented.

**Key words:** spittlebug, taxonomy, morphology, nymph

### Introduction

Shih & Yang (2002a) reported that the spittlebug family Aphrophoridae comprises at least 17 genera and 73 species from Taiwan. They then began studying the taxonomy, ecology, and biology for the aphrophorids of Taiwan and its adjacent islands (Shih & Yang, 2002b; 2005, 2007; Shih et al., 2005). These studies show that most species are widely distributed over the mountain areas of Taiwan, and their host plant associations are not clear except for a few species of *Poophilus*, *Clovia*, *Ariptyelus*, and *Aphrophora*.

The genus *Jembra* is one of the genera from mountain areas in Taiwan, but its biology remains poorly known. It was described by Metcalf and Horton in 1934 based on the pronotal carinae and male genitalia of the type species *J. pallida*. Kwon & Lee (1979) suggested that *Jembra* was a junior synonym of *Awafukia* Matsumura based on their studies of the male genitalia of *Awafukia nawae* (Matsumura) and Metcalf & Horton's (1934) original description. Liang (1999) reviewed *Jembra*, considered it valid and removed it from synonymy under *Awafukia* Matsumura. Then he treated *J. pallida* as the junior synonym of *J. nigronevosa* (Lallemand), moved *Jembroides inouyei* Matsumura to *Jembra*, added one new species, *J. sinica* from southwest China, and provided a generic redefinition and a key to the species of *Jembra*. Liang (2001: 443) treated *J. nigronevosa* (Lallemand) as the junior synonym of *J. brevistriga* (Walker, 1858). Therefore, since 2001 the genus *Jembra* has included 3 valid species, including *J. brevistriga*, *J. sinica*, and *J. inouyei*, of which the former two species are from China and the latter is from Taiwan.

While studying the aphrophorid fauna of Taiwan, three *Jembra* (sensu Liang 1999) species, *J. inouyei*, *J. kuanae* sp. nov., and *J. taiwana* sp. nov., were found. In this paper, the genus is defined based on the structure of the male genitalia, coxal meracanthus of midleg, and the ultrastructure of antennal flagellar sensory organs.