



Review of *Empoasca* (*Distantasca*) Dworakowska (Hemiptera: Cicadellidae: Typhlocybinae: Empoascini), with description of two new species from China

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Abstract

A key to known species of the subgenus *Empoasca* (*Distantasca*) is provided. Two new species, *E. (Distantasca) latibasis* Zhang and Liu **sp. n.** and *E. (D.) tuberculata* Zhang and Liu **sp. n.**, are described and illustrated from Yunnan Province (SW China).

Key words: Homoptera, Cicadomorpha, *Empoasca* (*Distantasca*), new species, taxonomy, China

Introduction

The leafhopper subgenus *Empoasca* (*Distantasca*) was first described as a separate genus by Dworakowska (1972), with *Empoasca terminalis* Distant (1918) as the type species. Dworakowska (1972) found *Distantasca* has the same structure and wings venation as in *Empoasca* Walsh, but male genital segments different. Then *Distantasca* was subsequently downgraded to a subgenus of *Empoasca* Walsh (Dworakowska & Viraktamath, 1975). It is primarily characterized by the well developed anal tube appendages and the long and narrow subgenital plates with macrosetae not reaching the tip of the plate and two bands of long, hair-like setae on the lateral surface, one near the mid-length of the plate and one just before the apex, often separated by a few thin but short setae. *Empoasca* (*Distantasca*) has been studied previously by Dworakowska (1972, 1977, 1980, 1981, 1994), 10 new species have been illustrated in all, and Qin & Zhang (2007) described 10 species, including 2 new species.

Up to now, 13 species have been reported world-wide. Most species of this subgenus are distributed in SE Asia and adjacent areas of the Palaearctic Region. In this paper, two new species, *E. (Distantasca) latibasis* and *E. (Distantasca) tuberculata* **spp. n.**, are described and illustrated and a key to species of the subgenus is provided.

Material and methods

All the specimens examined, including types of the new species, are deposited in the Entomological Museum, Northwest A&F University (NWAUFU). Habitus photos were taken by using a Scientific Digital micrography system equipped with an Auto-montage imaging system and a high sensitive QIMAGING Retiga 4000R digital camera (CCD). Multiple photographs were compressed into final images. The body measurements are from apex of vertex to tip of forewing. The morphological terminology used in this description follows Zhang (1990) except for the nomenclature of the wing venation, for which we follow Dworakowska (1993).