



Review of *Empoasca* (*Okubasca*) Dworakowska (Hemiptera: Cicadellidae: Typhlocybinae: Empoascini), first record from China and description of two new species

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Abstract

The subgenus *Okubasca* Dworakowska of the genus *Empoasca* Walsh (Hemiptera: Cicadellidae: Typhlocybinae: Empoascini) is recorded for the first time from China, and revised with two new species described and illustrated from southern China: *E. (O.) dianella* Qin & Zhang **sp. nov.**, *E. (O.) calvata* Qin & Liu **sp. nov.** Habitus photos and illustrations of male genitalia of these new species are given. A key to males of all three species of the subgenus is also provided.

Key words: leafhopper, new record, new species, taxonomy, China

Introduction

The leafhopper subgenus *Empoasca* (*Okubasca*) was established by Dworakowska (1982) for the single species *Empoasca okubella* Matsumura from Japan. This subgenus is reported here for the first time from China with two new species from southern China, *E. (O.) dianella* Qin & Zhang, *E. (O.) calvata* Qin & Liu **spp. nov.** described and illustrated herein. A key to males of all three species of the subgenus is also 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 using a Scientific Digital micrography system equipped with an Auto-montage[®] imaging system and a high-resolution QIMAGING Retiga 4000R digital camera (CCD). Multiple photographs were compressed into final images: 1. Images were printed and used as the basis for traced and inked illustrations, and illustrations were then digitized at 600 dpi; 2. Color photos were digitized at 300 dpi. 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), and groups of setae on the subgenital plate following Southern (1982).

The specimens examined in this study are deposited in the Entomological Museum, Northwest A&F University, Yangling, Shaanxi, China (NWAUFU).