Review of the bamboo-feeding species of tribe Evacanthini (Hemiptera: Cicadellidae) with description of two new species from China

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Abstract

The bamboo-feeding species of tribe Evacanthini are reviewed. They include 9 genera and 13 species: Angustella leucostrigata Li & Wang, 1991, Boundarus nigronotus Zhang, Zhang & Wei, 2010a, Carinata kelloggii (Baker, 1923), C. nigrofasciata Li & Wang, 1994a, Convexana fleura Chen, Yang & Li, 2012, Evacanthus repexus Distant, 1908, Onukia gutta Li & Wang, 1991, O. nigra Li & Wang, 1991, Parapythamus suiyangensis Li & Li, 2011, Taperus fasciatus Li & Wang, 1994b, T. luchunensis Zhang, Zhang & Wei, 2010b and the two new species, Bundera bambusana sp. nov. and Paraonukia wangmoensis sp. nov. The new species are described and all the species are photographed and illustrated. A key to these 13 species is also given.

Key words: Auchenorrhyncha, bamboo leafhopper, Oriental region, species diversity, taxonomy

Introduction

Evacanthinae (sensu Dietrich) is one of the smaller subfamilies of the large family Cicadellidae with over 50 genera and 200 species known from the world. The group, often considered as a tribe in the subfamily Cicadellinae (Oman et al., 1990), was recently reinstated to subfamily status including in addition to Evacanthini, the tribes Nirvanini, Balbillini and Pagaroniini (Dietrich, 2004). The tribe Evacanthini is characterized by the frontoclypeus having a complete longitudinal carina, front femora with more than one enlarged basal macrosetae and the hind leg lacking platellae on the pecten of the first basitarsomere (Viraktamath and Webb, 2007). This subfamily is distributed both in the Holarctic and the Oriental regions, and the diversity of genera is greater in the Oriental region than in the Holarctic (Oman et al., 1990).

During a study of species biodiversity of the bamboo-feeding leafhoppers in China, several species belonging to the tribe Evacanthini were identified. The purpose of this paper is to review the bamboo-feeding species of Evacanthini, to describe new species, to summarize information on host plants of the known species and to provide a key to bamboo-feeding species in the tribe.

Materials and methods

The study was carried out from 2001 to 2011 in southern provinces of China for a minimum of 10 weeks each year (June to October). All the leafhopper specimens collected from bamboo by sweeping net were counted and identified in the laboratory using a binocular microscope. A total of 8,000 leafhopper specimens were examined and a total of 58 different genera and at least 123 species were identified, belonging to 8 subfamilies (Chen et al., 2012).

Terminology follows Li et al. (2011). Dry specimens were used for preparing descriptions and illustrations. External morphology was observed under a stereoscopic microscope and characters were measured with an ocular...