

Article



Irenaneura, a new leafhopper genus from China (Hemiptera: Cicadellidae: Typhlocybinae: Erythroneurini), with description of four new species

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Abstract

A new genus of Erythroneurini from China and four new species, *Irenaneura dorsispina*, *I. dworakowski*, *I. longiprocessa*, *I. bifurcata* **spp. nov.** are described and illustrated, and a key for the identification of adult males is provided.

Key words: Hemiptera, Auchenorrhyncha, morphology, taxonomy

Introduction

The cosmopolitan leafhopper tribe Erythroneurini was established by Young (1952) for those Typhlocybinae with fusion of the vannal veins, Cu₁ branched apically and Cu₂ confluent with the submarginal vein in the basal half of the hind wing. Three large complexes were included: *Erythroneura* Fitch 1851, *Hymetta* McAtee 1919 and *Zygina* Fieber 1866, which have subsequently been divided into several more genera.

Studies on the Old World fauna were published by Dlabola (1957–1994), Anufriev (1969, 1971, 1972), Ahmed (1970, 1971), Sohi (1976, 1977, 1986), Chiang & Knight (1990), and in particular Dworakowska (various dates) who studied this challenging group beginning in 1967, revised most of the genera and enriched knowledge of this group by adding 106 new genera and more than 550 new species. More recently, Dietrich and Dmitriev (2006) revised the New World fauna based on a cladistic analysis of 100 morphological characters.

Resulting from the above taxonomic work Erythroneurini is the most species-rich tribe of Typhlocybinae, comprising 178 genera more than 2000 species, of which 39 genera are known from China. In the present work, a new genus from China is established based mainly on its distinctive style, 4 new species are described and illustrated, and a key to males is provided.

Material and methods

Materials studied in this paper are deposited in the Entomological Museum, Northwest A & F University, Yangling, Shaanxi, China (NWAFU), except the holotype of *I. bifurcata* deposited in China Agricultural University, Beijing, China (CAU). Morphological terminology used follows Young (1952) except for the nomenclature of the wing following Dworakowska (1993). Habitus photos were taken by using a Scientific Digital micrography system equipped with an Auto-montage imaging system and a Q-IMAGING Retiga 2000R digital camera (CCD). Multiple photographs were compressed into final images. The body measurements are from apex of vertex to tip of forewing, or to tip of scutellum if forewings are missing. Abdomens and genitalia were removed from specimens and cleared in 10% KOH solution heated for 1–2 minutes. Cleared material was then rinsed in water and stored in glycerine. A Nikon SMZ1500 dissecting microscope was used for viewing and an Olympus BH-2 stereoscopic microscope for drawing.