



## An unusual new genus and species of Hecalini leafhopper from southern China (Hemiptera: Cicadellidae: Deltocephalinae)

ZHI-QIANG HE<sup>1</sup>, YA-LIN ZHANG<sup>1\*</sup> & MICHAEL D. WEBB<sup>2</sup>

1. Key Laboratory of Plant Protection Resources and Pest Management of Ministry of Education, Entomological Museum, Northwest A & F University, Yangling, Shaanxi 712100, China.

Email: hezhiqiangtalimu@yahoo.com.cn

2. Department of Entomology, The Natural History Museum, Cromwell Road, South Kensington, SW7 5BD, London, UK

\*Corresponding Author: yalinzh@nwsuaf.edu.cn

### Abstract

An interesting new genus and species of Hecalini leafhopper, *Hecalusina unispinosa*, sp. n., are described from southern China. The unusual features of the new genus, including the male and female genitalia, are discussed and compared to other Hecalini.

**Key words:** Homoptera, morphology, taxonomy, distribution

### Introduction

Leafhoppers (Cicadellidae) are one of the most common insect groups and may be found on most vegetation types. Of the 40 subfamilies recognized by Oman et al (1990), the Deltocephalinae constitute by far the largest and most economically important group. The Hecalini, one of the 23 tribes in the subfamily, is found on grasses in all zoogeographic regions of the world. The group contains 28 genera and 180 species worldwide (excluding the five genera that Hamilton (2000) removed from Hecalini because of their different ocelli position).

Hecalini can be distinguished from other leafhoppers by a combination of the following characters: Usually stramineous to yellowish green, dorsum sometimes with coloured fasciae, rarely uniformly brown or black. Body slightly flattened dorso-ventrally. Head (Figs 1–6) usually subangularly produced to foliaceous in profile; vertex broad and flattish, smooth with rimlike or carinate anterior margin; length not more than 2× interocular width; anterior tentorium slender, furcate (Fig. 7); ocelli exposed on anterior margin of head between compound eye and end of laterofrontal sutures (Figs 2, 5); antennae short, located between facial suture and inner margin of eye in facial view (Figs 3, 6); antennal pits shallow; antennal ledges weak or absent; transclypeal suture complete; lateral frontal sutures extended through antennal pits to head margin, terminating distant from eye and anterior to ocelli (Figs 2, 5); gena broad, lateral margin strongly sinuate with notch below eye. Pronotum (Figs 1, 4) collar-shaped; anterior and posterior margins sub-parallel, usually with carina laterally; smooth without punctures and ridges. Hind femoral setal formula: 2-2-1 or 2-2-1-1-1. Forewings (Fig. 9) with apices rounded; venation complete. Male second sternal apodemes usually elongate, placed between broad apodemes of third sternite; without tergal apodemes.

In addition to the above characters, Zahniser & Webb (2004) identified a clade of grass-feeding groups, including Hecalini, based on the following characters of the female: 1st valvulae with a definitely delimited apicoventral sculptured area, subtriangular in shape; dorsal sculpturing pattern submarginal, maculose or scale