



## A taxonomic study of the Oriental leafhopper genus *Raabeina* Dworakowska (Hemiptera: Cicadellidae: Typhlocybinae: Erythroneurini), with descriptions of five new species and one new record from China

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### Abstract

Eight species of the genus *Raabeina* are illustrated, including three previously described species and five new species are described: *Raabeina acutata*, *R. biangulara*, *R. bubengensis*, *R. curtihamata* and *R. gracila* **spp. nov.** One species, *R. fuscofasciata* Dworakowska **n. rec.**, is newly recorded from China. A key to males of *Raabeina* is provided.

**Key words:** Hemiptera, Auchenorrhyncha, morphology, taxonomy, distribution

### Introduction

The leafhopper genus *Raabeina* was first described by Dworakowska (1972), with *R. fuscofasciata* from Vietnam as its type species. Two more new species were described subsequently with one recorded from China: *R. alae* Dworakowska, 1979 and *R. hsui* Chiang & Knight, 1990. For this paper, we studied specimens of seven species in this genus, adding five new species and one new record from China. Specimens of *R. alae* were not available for study but the species was well illustrated by Dworakowska (1979). All the specimens examined are deposited in the Entomological Museum, Northwest A & F University, Yangling, Shaanxi, China (NWAUFU), except the holotype of *R. acutata* deposited in China Agricultural University, Beijing, China.

Morphological terminology used follows Young (1952) except for the nomenclature of the wing venation following Dworakowska (1993). Habitus photos were taken 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. 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.

### *Raabeina* Dworakowska, 1972

Type-species: *Raabeina fuscofasciata*  
*Raabeina* Dworakowska, 1972j: 113.

**Diagnosis.** This genus can be easily recognized by its extremely long anal tube appendage, curved caudad or ventrocaudad. The genus is further characterized as follows: head as broad as or slightly narrower than pronotum, vertex broadly rounded apically; forewing with brochosome field obvious, third apical cell broad, fourth apical cell short; hind wing venation as usual for Erythroneurini; abdominal apodemes well developed, extended at least to fifth sternite; pygofer side with several macrosetae at its lower basal angle, row of rigid microsetae at hind or lower margin, and spiny sculpture on distal part; subgenital plate with broadened basal part, abruptly narrowed subapi-