



A new brachypterous leafhopper of the tribe Malmaemichungiini (Hemiptera: Cicadellidae: Bathysmatophorinae), representing the first record of the tribe from China

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Abstract

The rare brachypterous leafhopper genus *Malmaemichungia* Kwon is revised with the description and illustration of a new species, *Malmaemichungia qinlingensis* **sp. nov.**, from the Qinling Mountains, central China. The new species represents a substantial extension of the known range of the tribe Malmaemichungiini, all other species of which are recorded from South Korea. The taxonomic position and biogeography and habitats of Malmaemichungiini and the closely related Bathysmatophorini are discussed. Bathysmatophorinae is here treated as a separate subfamily for the first time (new status) and includes the nominotypical tribe and Malmaemichungiini.

Key words: Homoptera, Auchenorrhyncha, Bathysmatophorini, biogeography, biology

Introduction

Malmaemichungiini Kwon is a group of peculiar, flightless, spiderlike leafhoppers restricted to montane habitats and previously recorded only from South Korea. It is one of the two tribes presently included in Bathysmatophorinae, one of the smallest leafhopper subfamilies (see Discussion on taxonomic status of these groups). Malmaemichungiini differ from Bathysmatophorini in having the ocelli vestigial or absent, the forewings strongly brachypterous in both sexes (abdomen completely exposed) and the male styles with subapical projections.

Malmaemichungiini formerly included three genera and four species: *Malmaemichungia brachycephala* Kwon, 1983; *Bannalgaechungia alticola* Kwon, 1983; *B. hanlasana* Kwon, 1983 and *Koreotettix parvus* Huh & Kwon, 1994. The high altitude habitat, brachyptery and strong seasonality of these species presumably strongly limits gene flow and may have contributed to speciation in the group (see also Discussion). These characteristics may also explain why they were overlooked by leafhopper collectors until relatively recently (Kwon 1983, Huh & Kwon 1994). In the present paper we recognize and describe a new species of the genus *Malmaemichungia* (*M. qinlingensis* **sp. nov.**) from the Qinling Mountains of Shaanxi and Gansu Provinces, China. The discovery of the new species represents a significant range extension for this rare tribe.

Material and methods

External morphology was observed using a Motic SMZ 168-BL microscope. Photos were taken using a Scientific Digital micrography system equipped with an Auto-montage imaging system and a QIMAGING Retiga 4000R digital camera (CCD). The male genitalia were treated with 10% KOH solution at