Sychentia hainanensis sp. n., the first record of the genus from China, with notes on the morphology and biogeography (Hemiptera: Cicadellidae)

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Abstract

Sychentia hainanensis sp. n. is described and illustrated from Hainan Island, representing the first record of the genus from China and the second known species of the genus. The morphology and biogeography of the genus Sychentia Wei & Webb and related genera are discussed.

Introduction

Stegelytrinae Baker (= Stegelytrini sensu Zahniser & Dietrich, 2010) is a small but morphologically diverse subfamily of the Cicadellidae, among which most species generally are rare in collections (Wei et al., 2010). This subfamily occurs mainly in the Palaearctic and the Oriental regions, with just one endemic genus and species, Neophansia wallacei Wei & Webb, currently known from New Guinea in the Australian Region (Wei et al., 2010). The stegelytrine biodiversity of the Oriental Region is higher than in the Palaearctic Region, and the Indochinese Peninsula is known as the distribution center with the highest stegelytrine biodiversity at both generic and species levels (Wei et al., 2012).

Hainan Island is one of the biodiversity hotspots in China, and three stegelytrine species, Minucella leucomaclata, Pachymetopius dentatus, Quiontugia fuscomaculata, have been known from this island (Wei et al., 2010; Wei et al., 2012). Based on a five-year-investigation of the insect fauna of this island, from May of 2007 to June of 2011, one new species of the genus Sychentia Wei & Webb is described for Stegelytrinae in the present paper, which further broadens the diverse subfamily with respect to both morphology and biogeography.

Material and methods

External morphology was observed using a Motic SMZ 168-BL microscope. The male genitalia were dissected out, treated with 10% KOH solution at approximately 80°C for several minutes, rinsed with water, immersed in droplet of glycerol and observed using a compound light microscope (Nikon Eclipse 50i). 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 terminology of setal rows on legs follows Rakitov (1997).

Type specimen of the new species is deposited in the Northwest A&F University, Yangling, China (abbreviated in the text as NWAFU).

Subfamily Stegelytrinae Baker