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Description of the female terminalia of twenty species of Proconiini (Hemiptera: Cicadellidae) from Argentina

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Abstract

The tribe Proconiini is represented in Argentina by 18 genera and 44 species. Characters for the identification of most genera and species are from male specimens, while females are identified by association with males. In this contribution, the female terminalia of 20 species of Proconiini from Argentina are described and illustrated. The value of each character to genus or species identification is discussed.

Key words: Auchenorrhyncha, Cicadellinae, Sharpshooters, taxonomy

Introduction

Cicadellidae is the largest family of Hemiptera with approximately 22,000 described species distributed worldwide (McKamey 2002). It currently comprises 26 subfamilies (Dietrich 2005), of which Cicadellinae is one of most diverse with over 3,000 known species (Dietrich 2006). The subfamily Cicadellinae is divided in two tribes, a cosmopolitan Cicadellini and a New World Proconiini (Young 1968), although phylogenetic studies suggest at least three tribes (Takiya 2007). The tribe Proconiini *sensu* Young (1968) is especially rich in the Neotropical region (Nielson & Knight 2000) and some of its members have been identified as vectors of many diseases caused by the bacterium *Xylella fastidiosa* Wells *et al.* (Marucci *et al.* 2002). Proconiini includes 59 genera and 429 species (McKamey 2007; Takiya 2008; Wilson *et al.* 2009), of which 18 genera and 44 species are known from Argentina (Dellapé & Paradell 2013).

Currently, the characters used to identify genera and species of Proconiini are from male genitalia, while females are identified by comparison with previously identified males (Dietrich & Pooley 1994; Mejdalani 1995). When there are no males available, genus and species identification becomes difficult (Mejdalani 1998). Differences in female terminalia at species level have been reported in several studies, suggesting the value of this source of characters, at least, to species identification (Nielson 1965; Mejdalani 1998; Mejdalani & Da Silva 2010).

In this contribution, the female terminalia of 20 species of Proconiini from Argentina were described and illustrated. The value of each character to genus or species identification is discussed.

Material and methods

The specimens studied, including recently collected material, belong to the entomological collections of Museo de La Plata, La Plata, Argentina (MLP); Instituto y Fundación Miguel Lillo, Tucumán, Argentina (IMLA); Museo Argentino de Ciencias Naturales 'Bernardino Rivadavia', Buenos Aires, Argentina (MACN); and Illinois Natural History Survey, Champaign, USA (INHS). Females were identified by comparison with previously identified males collected in association with them or in the same locality. Female genital structures were removed, prepared in a hot solution of 10% KOH and dissected. The dissected genital parts were stored in microvials with glycerin. The morphological terminology adopted herein follows Nielson (1965) and Hill (1970). Use of the term gonoplacs

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