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Studies in Mexican Tettigoniidae: A new genus of Copiphorini and the first description of male *Conocephalus* (*Aphauropus*) *leptopterus* Rehn and Hebard and the female of *Insara acutitegmina* Fontana, Buzzetti, Mariño-Pérez & García García

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Abstract

A new genus belonging to the katydid tribe Copiphorini (Tettigoniidae: Conocephalinae) is established, *Brachycaulopsis* **gen. nov.**, collected from the state of Chiapas, Mexico. Also provided are first descriptions for both the male of *Conocephalus (Aphauropus) leptopterus* Rehn & Hebard, 1915 (Conocephalinae: Conocephalini) and the female of *Insara acutitegmina* Fontana *et al*., 2011 (Phaneropterinae: Insarini).

Key words: Brachypterous, Conocephalinae, Phaneropterinae, *Brachycaulopsis*, *Conocephalus, Insara*

Introduction

The cosmopolitan family Tettigoniidae consists of more than 1,200 genera and almost 7,000 species, distributed in 19 subfamilies (Eades *et al*., 2013). Overall, for Mexico, there are 205 species recorded in 76 genera (Fontana *et al*., 2008). For such a large and diverse family, there has been surprisingly little work on it within Mexico with only relatively few papers published over the last twenty years. These publications can be placed into loose groups based on their general content: song descriptions and sound-based taxonomy (Barrientos-Lozano and Montes-Torres, 1997; Buzzetti and Barrientos-Lozano, 2011), acoustic and morphometric comparisons to differentiate species (Barrientos and Hollander, 1994; Hollander and Barrientos, 1994), mate choice and/or hybridization experiments (Barrientos-Lozano, 1998; Barrientos-Lozano, 2000), and population estimations (Zúñiga *et al.*, 2002). Concerning morphological taxonomy, there have been some publications dealing with new taxa, but only for the subfamily Phaneropterinae. For example, Buzzetti *et al.* (2010) described a new genus, *Pterodichopetala*, in the tribe Odonturini and Fontana *et al.* (2011) described three new species in the tribes Insarini (*Arachnitus apterus*) and Odunturini (*Insara oaxacae* and *I. acutitegmina*). Additionally, Gorochov (2012) described two new species in the tribe Dysoniini (*Lichenomorphus berezini* and *L. sinyaevi*), and, finally, Barrientos-Lozano and Rocha-Sánchez (2013) added a second species for the genus, *Pterodichopetala* (*P. alfredoi*).

During field expeditions to southern Mexico in 2006 and 2011, a new genus, belonging to the tribe Copiphorini (Tettigoniidae: Conocephalinae), was collected. This tribe is distributed on all continents (except Antarctica) and consists of 430 species within 50 genera. In Mexico, there are 9 genera and 27 species listed for the tribe (Fontana *et al*., 2008). *Brachycaulopsis* **gen. nov**., established herein, is very interesting due to the presence of brachypterous wings in both sexes.

Additionally, due to the fact that the original description of *Conocephalus (Aphauropus) leptopterus* Rehn & Hebard, 1915 (Conocephalinae: Conocephalini) was based only on a single female (Rehn & Hebard, 1915; Hebard, 1932), and, after that, the male of the species was only illustrated (García-García & Fontana, 2008; Fontana *et al*.,

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