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Suprageneric taxa derived from *Amblycoryphini sensu lato* (Orthoptera: Tettigonioidea: Phaneropteridae: Phaneropterinae)

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Abstract

Based on the current description of the tribe *Amblycoryphini* some related genera have been excluded. These genera comprise two new tribes (*Vossiini* n. trib. and *Plangiopsiini* n. trib.) and a new generic group (*Plangiae* n. group). The main differences between the taxa described and the tribe *Amblycoryphini* are discussed, to understand the new proposed classification. *Plangiopsis aedeops* is placed in the genus *Plangiola*. This paper contributes to the knowledge of the tettigoniid fauna from Africa and understanding of the taxonomy of neotropical *Phaneropterinae*.

Key words: *Amblycoryphini*, *Vossiini* n. trib., *Plangiopsiini* n. trib. *Plangiae* n. group, Africa, Neotropics

Resumen

En base a la descripción actual de la tribu *Amblycoryphini*, se excluyeron algunos géneros relacionados en el pasado con la misma. Dichos géneros componen dos nuevas tribus (*Vossiini* n. trib. y *Plangiopsiini* n. trib.) y un nuevo grupo genérico (*Plangiae* n. group). Se discuten las principales diferencias entre los taxones descritos y la tribu *Amblycoryphini*, para de este modo entender la nueva clasificación propuesta. Se transfiere a *Plangiopsis aedeops* al género *Plangiola*. Con este artículo se aporta al conocimiento de la fauna de tetigónidos de África y al entendimiento de la taxonomía de los *Phaneropterinae* neotrópicas.

Palabras clave: *Amblycoryphini*, *Vossiini* n. trib., *Plangiopsiini* n. trib. *Plangiae* n. group, África, Neotrópico

Introduction

The subfamily *Phaneropterinae* is one of the *Tettigonioidea* groups with higher taxonomic problems, particularly as it relates to the classification at the suprageneric level. The subfamily consists of 344 genera (Eades et al, 2014). 147 genera are classified into 20 tribes (number of genera in brackets): *Amblycoryphini* (7), *Acrometopini* (7), *Arantiini* (1), *Barbitistini* (15), *Ducetiini* (11), *Dysoniini* (13), *Elimaeini* (4), *Holochlorini* (27), *Insarini* (4), *Microcentrini* (11), *Mirolliini* (5), *Odonturini* (13), *Otiaphysini* (2), *Pardalotini* (2), *Phaneropterini* (8), *Phlaurocentrini* (3), *Poreuomenini* (5), *Pycnopalpini* (8), *Steirodontini* (3), *Trigonocoryphini* (3), *Tylopsidini* (1), *Viadanini* (12). Among the remaining 212 genera, 107 are subordinate in 25 generic groups and 105 still remain ungrouped. With the review and establishment of the tribe *Amblycoryphini* (Brunner von Wattenwyl, 1878, Cadena-Castañeda, 2014), it was found that some taxa related to the tribe by authors like Brunner von Wattenwyl (1878, 1891), Karsch (1890a, 1890b), Bolívar (1906) and Ragge (1968 and 1980) actually correspond to other supra-generic taxa. The groups here have mainly an Afrotropical distribution.

The first supra-generic taxon is *Vossiini* n. trib., composed by the genera *Azamia* Bolívar, 1906, *Vossia* Brunner von Wattenwyl, 1878 (*Vossiina* n. subtr.), *Xantia* Brunner von Wattenwyl, 1878 and *Paraxantia* Liu & Kang, 2009 (*Xantiina* n. subtr.). The second taxon derivative is *Plangiopsiini* n. trib. in which *Plangiopsis* Karsch 1889 and *Plangiola* Bolívar, 1906 are included. Finally the group *Plangiae* n. group., is proposed temporarily while searching a specific association with other taxa already described.

Discussion

The tribe Plangiopsiini and Vossiini are created to host some genera that have obvious morphological characters that do not fit with the current description of the tribe Amblycoryphini. The main characters that differentiate them are the shape of the eyes, pronotum, tympana and terminalia (see table 1).

TABLE 1. Mainly differences between the tribes Amblycoryphini, Vossiini, Plangiopsiini and Plangiae group.

	Amblycoryphini	Vossiini	Plangiopsiini	Plangiae
Eyes	Elongated 45°	Vertically elongated	Subcircular	Globose
Pronotal disc	Flat, lateral carinae bounded	Rounded, not flattened.	Flat and with small denticulations on the lateral carina.	Flat, lateral carinae smoothly bounded
Lateral lobes of the pronotum	Compact, curving progressively from the anterior margin to the humeral sinus.	Posterior margin longer and more developed than the anterior margin	Compact, curving progressively from the anterior margin to the humeral sinus.	Compact, curving progressively from the anterior margin to the humeral sinus.
Tympanum	Symmetric (both side exposed)	Symmetric (both side conchate)	Asymmetric (exposed in the exterior side and conchate in the interior side)	Symmetric (both side exposed)

The eyes of Amblycoryphini and Vossiini are oval and elongate (fig. 3, 4, 7, 8), possibly due to convergence between the members of both tribes. Plangiopsiini and Plangiae have evident differences, in which eyes are subcircular or globose (fig. 5, 6). The pronotum of Vossiini is rounded and the posterior margin of the lateral lobe is more developed than the anterior margin. The pronotal disc in the others tribes are flat and lateral lobe is rounded.

Perhaps the most outstanding character differentiating these supra-generic taxa are the tympana on the fore tibiae, in Vossiini are partially concealed (covered by a shell or conch in both sides), Plangiae and Amblycoryphini have both sides exposed. Plangiopsiini have asymmetric tympana, character that grouped with Holoclorini, but asymmetric tympani may be a plesiomorphic character (Gorochoch & Kang, 2002, Liu, 2011), possibly evidence of a lineage within the subfamily consisting in several tribes; furthermore, the organization of the tribe Holoclorini needs to be revised, just as the grouping and relationship with the Psyrae group.

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