The identity of the treehopper genus *Dysyncritus* Fowler, with descriptions of new related taxa (Hemiptera: Membracidae: Heteronotinae)

OLIVIA EVANGELISTA1,4, CAMILO FLÓREZ-V2 & ALBINO M. SAKAKIBARA3
1Museu de Zoologia da Universidade de São Paulo, Avenida Nazaré, 481, Ipiranga, São Paulo SP 04263 000, Brazil;
2Grupo de Entomologia, Universidad de Antioquia (GEUA), Medellín, AA 1226, Colombia;
3Departamento de Zoologia, Universidade Federal do Paraná, Caixa Postal 19020, Curitiba PR 81531-980, Brazil.
4Corresponding author. E-mail: olivia_evangelista@yahoo.com.br

Abstract

*Dysyncritus* Fowler is revised based on the examination of primary types, and restructured to exclusively accommodate *Dysyncritus intectus* Fowler, 1895. *Allodrilus* Evangelista gen. nov. (type species: *Cymbomorpha nitidipennis* Funkhouser, 1922 = *Allodrilus nitidipennis* (Funkhouser, 1922) comb. nov.) is erected with seven newly discovered taxa: *A. alboferrugineus* Evangelista sp. nov. (Brazil, Colombia, Guyana), *A. colombiensis* Flórez-V sp. nov. (Colombia), *A. deitzi* Evangelista sp. nov. (Ecuador), *A. granulatus* Evangelista sp. nov. (Colombia), *A. horizontalis* Evangelista sp. nov. (Bolivia), *A. intermedius* Evangelista sp. nov. (Ecuador), and *A. similis* Evangelista sp. nov. (Peru). A key to males is provided, in addition to annotated descriptions and illustrations. Nomenclatural changes are proposed to species formerly included in *Dysyncritus*: *Smiliorachis nubilis* (Goding, 1930) comb. nov., *Smiliorachis discrepans* (Goding, 1930) comb. nov., and *Dysyncritus lineatus* Goding, 1930 (= *Smiliorachis octilinea* Stål, 1869 syn. nov.).

Key words: Auchenorrhyncha, Heteronotini, taxonomy, nomenclatural notes, new species

Introduction

Species in the treehopper family Membracidae are renowned for their extraordinarily developed pronota, which often consists of complex-shaped structures thought to have adaptive significance and play multiple roles in treehopper biology (Wood, 1993a). The subfamily Heteronotinae shows an outstanding diversity of such thoracic ornamentations, and currently comprises 103 species classified in nine exclusively Neotropical genera (McKamey, 1998a; Sakakibara, 1998c). The monophyly of the subfamily is supported by the following characters: the dorsally concave vertex, the absence of the crossvein m-cu, and female’s second valvulae serrated distally (Dietrich et al., 2001a; Deitz, 1975a). Whereas some heteronotine genera are unique in their external morphology (i.e., *Heteronotus* Laporte, and *Omolon* Walker), others may appear identical to each other, as exemplified by *Dysyncritus* Fowler, and *Smiliorachis* Fairmaire. Indeed, the lack of a comprehensive study on *Dysyncritus* and *Smiliorachis* made species determination a difficult task, especially with the substantial number of taxa awaiting formal description. Although pronotal shape and coloration show a lesser degree of variation in these groups, their male genitalia are remarkably elaborate in comparison to other heteronotines. Those genitalic structures provide a useful basis for species recognition, as well as characterization of genus-level taxa. The focus of this revision is to reassess the taxonomic identity of *Dysyncritus* and to place morphologically heterogenous species currently considered congeneric in well defined genera.

Taxonomic background

Fowler (1895b) erected *Dysyncritus* to accommodate a single species, *Dysyncritus intectus*, described by the author
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**Smiliorachis octilinea** Stål, 1869

*Smiliorachis octilinea* Stål, 1869c: 260; Berg, 1883c: 293 [comparative notes]; Funkhouser, 1927f: 156 [catalogued]; Goding, 1929e [sic]: 225 [key, catalogued]; Funkhouser, 1951a: 82, Pl. III, Fig. 36 [illustrated, catalogued]; Metcalf & Wade, 1965a: 647 [catalogued]; McKamey, 1998a: 169 [catalogued].

*Dysyncritus lineatus* Goding, 1930b: 12 [original description], 14 [key, comparative notes]; Metcalf & Wade, 1965a: 645 [catalogued]; McKamey, 1998a: 162 [catalogued]. Syn. nov

Procyrta lineatus; Funkhouser, 1951a: 84 [catalogued in Darnini: error].


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