Sub-brachypterous Ricaniidae (Hemiptera: Fulgoromorpha) of Madagascar with morphological notes for these taxa

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Abstract

Four new genera of sub-brachypterous Ricaniiidae are described from Madagascar. Globularica gen. nov. is established for a single species, Globularica diversicolorata sp. nov. Coniunctivena gen. nov. is established for four species: Coniunctivena antsignyensis sp. nov., C. epaulettea sp. nov. (type species), C. montuosa sp. nov., C. synuevi sp. nov.; Nasatus gen. nov. is established for two species: Nasatus sparsus sp. nov. (type species) and N. davidouvardi sp. nov.; Cyamosa gen. nov. is established for four species: Cyamosa adelinae sp. nov., C. camelouca sp. nov. (type species), C. pauliani sp. nov., C. splendens sp. nov.; Isobium gibbosum Melichar, 1906 is redescribed and transferred from the Issidae to the Ricaniiidae. Photographs, drawings and maps of distribution for all mentioned species are presented. Discussion is provided on antennal plate organs, tegminal sub-brachypterism, and female bursa copulatrix structure, for these sub-brachypterous Ricaniiidae.

Key words. Madagascar, Ricaniiidae, morphology, taxonomy, antennal plate organs, brachypterism, bursa copulatrix.

INTRODUCTION

The planthopper family Ricaniiidae Amyot et Serville, 1843 currently includes more than 400 “named” species in 50 genera (Bourgoin 2011). However, based on the examination of several major collections hosted in various museums of the world, the estimated number should exceed a thousand species, distributed mainly in the tropical and subtropical regions of the world (Stroiński 2010b). The generic classification and relationships between the genera remain superficial and still need a careful and deep analysis. Recently, Gnezdilov (2009) subdivided the family in two subfamilies: Ricaniiinae Amyot et Serville, 1843 and Pharsalinae Gnezdilov, 2009. The subfamily Pharsalinae was established for two South American genera transferred to the Ricaniiidae from the Issidae and Lophopidae respectively: Pharsalus Melichar, 1906 and Silvanana Metcalf, 1947. The status of this unit, as well as the taxonomic positions of other South American genera placed in the Ricaniiidae are under revision.

Half of the genera (26) and about one third of the species of the world fauna are recorded from the Afrotropical Region (including Madagascar, Mascarene Islands and Southern Arabia). About 68 species belonging to 12 genera have been recorded from Madagascar so far (Metcalf 1955; Synave 1956, 1966). However as was shown by