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Revision of the genus *Falsocaenia* (Coleoptera: Lycidae)

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Abstract

The Neotropical genus *Falsocaenia* Pic, 1922 is revised. Two species *Falsocaenia ecuadorensis* **sp. nov.** and *F. melanopteron* **sp. nov.** are proposed as new to science. *Idiopteron* (*F.*) *apicicorne* (Pic, 1922) and *Idiopteron* (*F.*) *aurantiacocostatum* (Pic, 1932) are placed in the genus *Falsocaenia*, and consequently, *Falsocaenia apicicornis* (Pic, 1922) **comb. n.** and *Falsocaenia aurantiacocostata* (Pic, 1932) are proposed. *Falsocaenia breveapicalis* Pic, 1930 is considered to be a younger subjective synonym of *Falsocaenia decipiens* (Gorham, 1884) and *Falsocaenia callangana* (Pic, 1922) is synonymized to *F. longehumeralis* (Pic, 1922). *Falsocaenia nigripenne* Pic, 1934 is transferred to the genus *Idiopteron* and *Idiopteron nigripenne* (Pic, 1934) **comb. n.** is proposed. Simultaneously, lectotype of *Falsocaenia aurantiacocostata* is designated. Illustrations of diagnostic characters are included and a key to *Falsocaenia* species is given.

Key words: Taxonomy, *Falsocaenia*, new species, Neotropical Region

Introduction

The genus *Falsocaenia* Pic, 1922 is one of small lycid genera of the tribe Calopterini distributed exclusively in Central and South Americas from Costa Rica to Argentina. *Falsocaenia* was described as a subgenus of *Idiopteron* Bourgeois, 1905. Bocakova (2003) considered their common features as superficial similarities, and elevated *Falsocaenia* to generic rank.

Phylogenetic relationships of *Falsocaenia* and other Calopterini genera were tested by Bocakova (2005). This analysis of adult morphological characters rejected affinities to *Idiopteron* (Pic, 1922), and instead showed *Falsocaenia* to be closely related to Acroleptina clade (i.e. *Lycomorphon*, *Lycinella*, *Ceratopriomorphus*, *Acroleptus*). Morphological similarities of the pronotum and male genitalia suggest close relationships to neotenic *Lycomorphon*. Neoteny was shown to be a widespread phenomenon in Lycidae (Bocak & Bocakova 2008, Bocakova 2006, Malohlava & Bocak 2010). Unlike *Lycomorphon* and other acroleptines with presumably apterous and larviform females, *Falsocaenia* females are fully winged.

Unfortunately, few Calopterini were included in the DNA sequence analysis of the family Lycidae (Bocak et al. 2008), and therefore *Falsocaenia* phylogenetic relationships remain blurred. A new species from Colombia was found in the collection of The Natural History Museum in Paris and another new species from Ecuador was found in the collection of the Museum and Institute of Zoology in Warsaw. Here we present a revision of the genus *Falsocaenia* and provide descriptions, illustrations and a key to species.

Material and Methods

The specimens were examined under an Olympus SZX 12 stereoscopic microscope, with magnification up to 90×. External and internal morphological characters were documented and digital photographs were taken using an