



Two new cicada species from Costa Rica (Hemiptera: Cicadomorpha: Cicadidae) with a key to the species of *Fidicinoides* in Costa Rica

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Abstract

The Neotropical cicadas *Fidicinoides coffea* Sanborn, Moore and Young and *Fidicinoides guayabana* Sanborn, Moore and Young are described as new species. This work validates the names previously assigned to these species which had been considered nomina nuda. Comparisons are made to other members of the genus found in Costa Rica. A summary of the biology of each new species is provided. The following new combinations, all for species formerly included in *Fidicina*, are proposed: *Fidicinoides brisa* (Walker 1850), *F. cachla* Distant 1899, *F. flavibasalis* Distant 1905, *F. fumea* Distant 1883, *F. glauca* Goding 1925, *F. opalina* (Germar 1821), *F. passerculus* (Walker 1850), *F. sericans* Stål 1854, *F. spinicosta* (Walker 1850), *F. steindachneri* Kuhlitz & Melichar 1902, *F. variegata* Sanborn 2005, and *F. viridifemur* (Walker 1850). A key to the Costa Rican species of *Fidicinoides* is provided.

Key words: new species, new combinations, morphology, taxonomy

Introduction

The genus *Fidicina* was erected by Amyot & Serville (1843) for cicadas that possess a short head, prominent eyes, non-dilating prothorax, transparent tegmina and wings with brown venation, males with small opercula, and two tarsal segments. This general description has led to many species from diverse phylogenetic lineages being placed at one time or another in the genus *Fidicina*. Species have been transferred into or out of *Fidicina* since its creation from the following genera (Metcalf 1963, Boulard & Martinelli 1996): *Cicada* Linné, *Tettigonia* Fabricius, *Diceroprocta* Stål, *Cryptotympana* Stål, *Chremistica* Stål, *Macrotristria* Stål, *Psaltoda* Stål, *Tympanoterpes* Stål, *Ariasa* Distant, *Majeorona* Distant, *Rihana* Distant, *Lyristes* Horváth, *Tibicen* Latreille, *Cornuplura* Davis, *Thopha* Amyot & Serville, *Hemisciera* Amyot & Serville, *Carineta* Amyot & Serville, *Dorisiana* Metcalf, *Arenopsaltria* Ashton and, finally, *Fidicinoides* Boulard & Martinelli. Several of these genera are now classified not only in different tribes from *Fidicina* but different subfamilies (Moulds 2005). Although the species which have at one time been members of *Fidicina* have a world wide distribution, the genus and closely related genera which have been split from it are restricted to the New World, primarily in South America (Metcalf 1963, Duffels & van der Laan 1985).

Boulard & Martinelli (1996) reassigned five species of *Fidicina* that have a small lateral metascutellar plates (particularly in males), a small dorso-lateral opening to the timbal chamber, a cruciform elevation with a smooth lateral surface, and eyes not exceeding the breadth of the suprahumeral lobes of the pronotum into