

Description of a new genus and species of whitefly from *Lafoensia pacari* in Brazil (Hemiptera, Aleyrodidae, Aleurodicinae)

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Abstract

Costalimada brasiliensis, gen. and sp. nov. is described from *Lafoensia pacari* (Lythraceae) in Minas Gerais, Brazil. Its position within the Aleurodicinae is discussed, and an amendment to a previously published key to worldwide genera of Aleurodicinae is presented.

Key words: new genus, neotropical, Brazil, Aleurodicinae, key to genera, *Lafoensia*

Introduction

The definitions of many of the New World genera of Aleurodicinae have been unsatisfactory for many decades (Martin, 2008a). Some early attempts to provide keys to whitefly genera of both subfamilies (e.g. Bondar, 1923; Sampson, 1943; Sampson & Drews, 1941, 1956) tended to provide couplets of unrealistic brevity, and also revealed more taxonomic problems than were solved. Over the past seven years the present author has studied examples of puparia of all nominal aleurodicine genera from the Neotropical Region, along with a large proportion of the described species. In 2004 a key to the puparia of New World aleurodicine genera was presented, based on revised generic diagnoses suggested by a study of whiteflies in Belize (Martin, 2004). This study led to the description of *Kaieteurodicus*, a new genus of neotropical aleurodicine whitefly from Guyana and Panamá, accommodating two species (Martin, 2008a). This was followed by a revision of the type genus of the Aleurodicinae, *Aleurodicus* Douglas, in which an identification key to all genera of Aleurodicinae was presented, including those native to the Old World (Martin, 2008b).

In 2009 a sample of aleurodicine puparia from *Lafoensia pacari* (Lythraceae) was forwarded to the BMNH (see below) by Paula Brayner Souto Maior Lima, of IMA (see below). The specimens had been collected at the botanical gardens at Belo Horizonte, Minas Gerais, Brazil. The sample sent to BMNH comprised only puparia and a single third-instar nymph but it is clear from this limited material that an undescribed genus is involved. The purpose of this communication is to describe and discuss this new genus and species, and to provide a modification to Martin's (2008b) key to world genera of Aleurodicinae. The holotype of *Costalimada brasiliensis* has been selected from the material sent to BMNH and is deposited there.

Institutional abbreviations

BMNH	Natural History Museum, London, U.K.
IMA	Laboratório de Diagnóstico Fitossanitário em Insetos, Fiscal Agropecuário Estadual, Instituto Mineiro de Agropecuária, Minas Gerais, Brazil.
USNM	U.S. Department of Agriculture, Beltsville, Maryland, U.S.A. (custodians of the Sternorrhyncha collections of the U.S. National Museum of Natural History, Washington D.C.)