



## The genus *Cacama* Distant, 1904 (Hemiptera: Cicadidae) with the description of three new species

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### Abstract

The cicada genus *Cacama* Distant is redescribed. The species *C. collinaplaga* Sanborn & M. Heath **sp. n.**, *C. moorei* Sanborn & M. Heath **sp. n.**, and *C. pygmaea* Sanborn **sp. n.** are described as new. A key to the 12 known species of *Cacama* is provided. The distributions of the new *Cacama* species are also illustrated.

**Key words:** Homoptera, Cryptotympanini, morphology, taxonomy, distribution

### Introduction

In 1881, Distant described three species of Mexican cicadas (*Cicada dissimilis* Distant, *Proarna maura* Distant, and *Proarna longirostris* Distant) that would eventually become members of the genus *Cacama*. Uhler (1888) then described *Proarna valvata* Uhler from Texas and Arizona, which would later be transferred to *Cacama*. Distant (1904) then erected the genus *Cacama* for *P. maura*, a robust cicada he had previously described from Mexico. Distant (1906) transferred *Cicada dissimilis* and *P. longirostris* to the genus *Cacama*. Van Duzee (1914) described *Proarna crepitans* Van Duzee from southern California and transferred both this species and Uhler's species to *Cacama* the following year (Van Duzee 1915). This completed the generic reassignment of species within the genus. Davis (1919) considered the genus as a whole, describing *C. californica* Davis, *C. carbonaria* Davis, *C. furcata* Davis, and *C. variegata* Davis from California and Mexico and provided a key to the known *Cacama* species. No new species have been described since that time.

The species of *Cacama* are associated with *Opuntia* Mill. cactus and are often referred to as cactus dodgers due to their habit of singing and flying between perches on *Opuntia* (Heath *et al.* 1972; Phillips and Sanborn 2007). The greatest species diversity is found in Mexico (Sanborn 2007) but the genus is distributed across much of the western United States and specimens have now been found in multiple Central American countries (Metcalf 1963a; Duffels and van der Laan 1985; Sanborn 2006; 2007).

We provide a detailed generic description and the description of three new species with this work. Biological information on two of the new species as well as comparative data for *C. valvata* (Uhler) is presented to illustrate the differences between these sympatric *Cacama* species.

### Material and methods

**Specimen collection.** Field studies were performed during May, June and July of 1985–1989, 1991, 1993–1996, 1998, and 2000–2001 with specimens of *Cacama* collected in Arizona, Utah, New Mexico, Colorado, and Texas. Comparisons of the two new species collected in the United States are made to *C. valvata* (Uhler) whose distribu-