



A review of *Tachardiobius* (Hymenoptera: Encyrtidae), with description of a new species from California, USA, a parasitoid of *Tachardiella* spp. (Hemiptera: Kerriidae)

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Abstract

A new species of the little known genus *Tachardiobius* Timberlake (Hymenoptera: Encyrtidae) is described from Arizona and California, USA. A part of the type series of *T. vladimiri* sp. n. (from California) was reared from the lac scales *Tachardiella larreae* (Comstock) on an unknown plant and *Tachardiella* sp. (Hemiptera: Kerriidae) on *Adenostoma* sp. The other two described species, *T. nigricans* Timberlake (Mexico and USA) and *T. silvestrii* De Santis (Argentina), are re-diagnosed and illustrated. A key to the species of *Tachardiobius* is provided and their distribution and host associations are indicated.

Key words: Encyrtidae, *Tachardiobius*, taxonomy, Kerriidae, *Tachardiella*, parasitoid

Introduction

Members of the little known and rarely collected New World genus *Tachardiobius* Timberlake (Hymenoptera: Encyrtidae) parasitize lac scales of the family Kerriidae [also known as Tachardiidae or Lacciferidae] (Hemiptera). Species of *Tachardiobius* can be recognized using the keys by Noyes (1980) for the Neotropical region and Noyes *et al.* (1997) for the Nearctic region. The two previously described species of *Tachardiobius* are *T. nigricans* Timberlake, a parasitoid of *Tachardiella larreae* (Comstock) on greasewood (*Sarcobatus vermiculatus*) in Arizona and California, USA (Timberlake 1926), and *T. silvestrii* De Santis, a parasitoid of *Tachardiella argentina* (Dominguez) on *Adesmia* sp. in Chubut, Argentina (De Santis 1954). Specimens of an undescribed, distinctive species of *Tachardiobius* from California were found in the collection of the Entomology Research Museum, University of California at Riverside. They were mixed in the same batch of specimens, collected near Hemet in Riverside County, with a long series of *T. nigricans*. According to the identification labels, P.H. Timberlake recognized the presence of at least a few specimens of a new species among the more numerous specimens of *T. nigricans*, all of which were reared from a *Tachardiella* sp. on *Adenostoma* sp. But at the same time he also misidentified a few specimens of *T. nigricans*. Here I describe this new taxon and also provide a brief, broadened generic diagnosis of *Tachardiobius* and an annotated key to its three known species. Because the original descriptions of *T. nigricans* and *T. silvestrii* are good, only brief, illustrated diagnoses of these two species are given to facilitate their recognition.

In the Old World, members of Kerriidae are parasitized (among other Encyrtidae) by the somewhat superficially similarly looking encyrtid genus *Tachardiaephagus* Ashmead, belonging to the tribe Microteriyini, subtribe Microteriyina of the subfamily Encyrtinae (Noyes & Hayat 1984; Trjapitzin 1989). *Tachardiobius*, however, is placed in the tribe Aphycini, subtribe Paraphycina of the subfamily Encyrtinae (Trjapitzin &