A new species of Gonatocerus (Hymenoptera: Mymaridae) parasitic on proconiine sharpshooters (Hemiptera: Cicadellidae) in the New World

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Abstract

A new species of Gonatocerus Nees (Mymaridae) is described from the states of San Luis Potosí and Tamaulipas in Mexico, with additional records from Argentina and Peru. Type specimens of G. uat S. Triapitsyn sp. n. were reared in Mexico from the eggs of proconiine sharpshooters (Cicadellidae: Cicadellinae: Proconiini) in the genera Homalodisca Stål and Oncometopia Stål. Taxonomic and molecular evidence from five gene regions (28S-D2, ITS1, ITS2, COI, COII) is provided to help differentiate the new species from the morphologically similar taxon, G. ashmeadi Girault, which also belongs to the ater species group of Gonatocerus.

Key words: Mymaridae, Gonatocerus, taxonomy, Proconiini, egg parasitoid, molecular, parsimony

Introduction

Gonatocerus Nees is a large, speciose, and common genus of Mymaridae (Hymenoptera). Huber (1988) provided an overview of the genus and revised two of its species groups in North America. Many members of the ater species group are known to be egg parasitoids of various proconiine sharpshooters (Cicadellidae: Cicadellinae: Proconiini) (Triapitsyn 2002a, 2002b; Triapitsyn et al. 2002). In the course of a “classical” biological control program against the glassy-winged sharpshooter, Homalodisca coagulata (Say) (Triapitsyn & Hoddle 2001, 2002), a new species of Gonatocerus was reared in Tamaulipas, Mexico, from eggs of at least two undetermined species of Homalodisca Stål and Oncometopia Stål, likely from some of those mentioned by Coronado-Blanco et al. (2000). The new species was first believed to be a mere color variant of the common and