



Entedoninae (Hymenoptera: Eulophidae) associated with gall-inducing insects (Diptera: Cecidomyiidae) in Panama

MIGUEL PANIAGUA^{1,3}, CHRISTER HANSSON² & ENRIQUE MEDIANERO¹

¹Programa Centroamericano de Maestría en Entomología, Vicerrectoría de Investigación y Postgrado, Universidad de Panama, Ciudad de Panama.

²Department of Zoology, Helgonavägen 3, SE-223 62 Lund, Sweden. E-mail: Christer.Hansson@cob.lu.se

³Corresponding author, present address: Compañía Azucarera Salvadoreña, S.A. de C.V., Central Izalco Km 62½ Carretera a Sonsonate, Izalco, Sonsonate, El Salvador; C.A. E-mail: mrpaniagua@gmail.com

Abstract

A new species of *Ametallon* Ashmead, *A. carinatum* sp. n. and five new species of *Chrysonotomyia* Ashmead, *C. dussiae* sp. n., *C. longicaudata* sp. n., *C. machaeriae* sp. n., *C. unimaculata* sp. n. and *C. claviger* sp. n. (Eulophidae: Entedoninae) are described from Panama. New host associations are recorded for *Ametallon gorgonaense* Hansson, *Chrysonotomyia auripunctata* (Ashmead), *Chrysonotomyia galbina* Hansson, *Chrysonotomyia laeviscuta* Hansson, *Chrysonotomyia phenacapsia* Yoshimoto and *Tropicharis cecivora* Hansson. All these species belong to the *Omphale* genus group, and were reared from galls collected in the canopy and understorey of two tropical forests in Panama.

Key words: Parasitoids, *Omphale* genus group, gall-inducing Cecidomyiidae, host-parasitoid relationship, canopy

Introduction

Gall-inducing insects constitute one of the feeding niches with the highest parasitoid species richness, second only to leaf miners (Hawkins 1994). The fact that the gall-associated parasitoid complexes form closed and highly specialized communities (Stone & Schönrogge 2003) make them a suitable model system for community ecology and biological control research.

The parasitoids of gall-inducing insects belong to the superfamilies Chalcidoidea, Platygastroidea and Ichneumonoidea. In Chalcidoidea the families associated with gall inducers are Eulophidae, Eurytomidae, Torymidae, Ormyridae and Pteromalidae (Noyes 2003). Unfortunately the taxonomical knowledge of Neotropical parasitoids of gall-inducing insects is still incomplete, and this imposes serious limitations to the development of comprehensive ecological studies.

While working on Neotropical Entedoninae, Hansson (2004) proposed and revised the *Omphale* genus group based on morphological traits and the association with gall inducers. In the Neotropics the *Omphale* group is composed of the following genera: *Ametallon* Ashmead, *Chrysonotomyia* Ashmead, *Dinopteridion* Hansson, *Driopteron* Hansson, *Eprhopalotus* Girault, *Omphale* Haliday, *Perditorulus* Hansson and *Tropicharis* Hansson.

The main objective of this work is to contribute to the knowledge of the species belonging to the *Omphale* genus group, describing new species and presenting new host records for already described species. The complete parasitoid-host relationship and the food web structure of the communities studied is described in Paniagua *et al.* (2009).