

## **Article**



# A new species of *Colpoclypeus* Lucchese (Hymenoptera: Eulophidae) from Mexico

JOSÉ ANTONIO SÁNCHEZ-GARCÍA<sup>1</sup>, SAMUEL PINEDA<sup>2</sup>, ANA MABEL MARTÍNEZ<sup>2</sup>, ANGEL REBOLLAR-ALVITER<sup>3</sup>, ANA CELESTINA JUÁREZ-GUTIÉRREZ<sup>2</sup>, IGNACIO LÓPEZ CRUZ<sup>3</sup>, JOHN LA SALLE<sup>4</sup> & JOSÉ ISAAC FIGUEROA<sup>2,5</sup>

<sup>1</sup>CIIDIR Oaxaca, Instituto Politécnico Nacional, Área de Control biológico, Hornos #1003, Santa Cruz Xoxocotlán, Oaxaca, C.P. 71230, México

<sup>2</sup>Instituto de Investigaciones Agropecuarias y Forestales, Universidad Michoacana de San Nicolás de Hidalgo, Km. 9.5 carretera Morelia-Zinapécuaro, Tarímbaro, Michoacán, 58880, México. E-mail: figueroaji@yahoo.com.mx

#### **Abstract**

A new species of *Colpoclypeus* Lucchese (Hymenoptera: Eulophidae) is described and illustrated. *Colpoclypeus michoa-canensis* Sánchez & Figueroa attacks *Argyrotaenia montezumae* Walsingham (Lepidoptera: Tortricidae) on blackberry plants. A key is included to separate *C. michoacanensis* from *C. florus* (Walker), the only other species in this genus.

Key words: wasp, parasitoid, blackberry plants, Michoacán

#### Introduction

The genus *Colpoclypeus* Lucchese (Hymenoptera: Eulophidae) was described by Lucchese (1941) for his new species *C. silvestri*. Graham (1959) subsequently transferred *Eulophus florus* Walker (1839) to *Colpoclypeus* and synonymized *C. silvestri* under *C. florus*. It has been the only described species in the genus and is classified in the subfamily Eulophinae, although it is not clear whether it is better placed in the tribe Eulophini (Gauthier *et al.* 2000) or Cirrospilini (Ubaidillah *et al.* 2003).

Colpoclypeus florus is a gregarious ectoparasitoid of larvae of several species of Tortricidae (Lepidoptera) leafrollers (Gruys & Vaal 1984; Brunner 1993; Schauff et al. 1997). It is widely distributed in Europe, and has also been reported from Eurasia (Caucasus Region) and North Africa (Morocco and Egypt), and has recently been introduced into North America (Brunner 1993 and 1996; Pfannestiel & Unruh 2002; Noyes 2003). Publications on C. florus have described its biology (Monta et al. 1973), use in biological control (Gruys & Vaal 1984), optimal selection and exploitation of hosts (Dijkstra 1986), diapause (Milonas & Savopoulou 2000), and parasitization strategy (van Veen & van Wijk 2009). This paper describes a second species of Colpoclypeus from Mexico, which was reared from the leafroller Argyrotaenia montezumae Walsingham (Lepidoptera: Tortricidae), on blackberry plants, Rubus sp. (Rosaceae) from Michoacán.

### Material and methods

Our description of the new species is based on 66 specimens. To compare the new species we borrowed material of *C. florus* from Dr. Thomas R. Unruh (USDA-ARS-Yakima Agricultural Research, Wapato, Washington, USA), who collected them in Wapato from *Choristoneura rosaceana* (Harris) (Lepidoptera: Tortricidae). Measurement

<sup>&</sup>lt;sup>3</sup>Universidad Autónoma Chapingo/Centro Regional Morelia, Michoacán, 58170, México

<sup>&</sup>lt;sup>4</sup>CSIRO Ecosystem Sciences, GPO Box 1700, Canberra, ACT 2601 Australia

<sup>&</sup>lt;sup>5</sup>Corresponding author