



<http://dx.doi.org/10.11646/zootaxa.3956.1.7>

<http://zoobank.org/urn:lsid:zoobank.org:pub:53C658C9-F96E-495B-8E9E-DACD43E94D14>

## Review of the Mexican species of *Erythmelus* (Hymenoptera: Mymaridae), with description of two new species

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### Abstract

The Mexican species of *Erythmelus* Enock (Hymenoptera: Mymaridae) are revised. A key to females of 13 species is provided in both English and Spanish. Two new taxa are described—*E. maya* Guzmán-Larralde & Triapitsyn, **sp. n.** and *E. tigres* Guzmán-Larralde & Triapitsyn, **sp. n.** Six species are newly recorded from Mexico—*E. angustatus* Ogloblin, *E. cingulatus* Ogloblin, *E. clavatus* Ogloblin, *E. gracilis* (Howard), *E. nanus* Dozier, and *E. noeli* (Dozier), besides new geographic records for *E. miridiphagus* Dozier, *E. picinus* (Girault), *E. psallidis* Gahan, and *E. rex* (Girault) which were previously known from the country.

**Key words:** Chalcidoidea, egg parasitoid, key, Miridae, Tingidae, Mexico

### Resumen

Se revisaron las especies mexicanas de *Erythmelus* Enock (Hymenoptera: Mymaridae). Se provee una clave para hembras en inglés y español para 13 especies encontradas en México. Son descritas dos nuevas especies—*E. maya* Guzmán-Larralde & Triapitsyn, **sp. n.** y *E. tigres* Guzmán-Larralde & Triapitsyn, **sp. n.** Seis especies son registros nuevos geográficos de el país—*E. angustatus* Ogloblin, *E. cingulatus* Ogloblin, *E. clavatus* Ogloblin, *E. gracilis* (Howard), *E. nanus* Dozier y *E. noeli* (Dozier), además del registro de nuevos estados para *E. miridiphagus* Dozier, *E. picinus* (Girault), *E. psallidis* Gahan, y *E. rex* (Girault) las cuales fueron reportadas para el país.

**Palabras clave:** Chalcidoidea, parasitoide de huevos, clave, Miridae, Tingidae, México

### Introduction

Mexico has a rich biodiversity due to its climate and geographical location straddling both the Nearctic and Neotropical Regions (Toledo 1994). Among insects, the order Hymenoptera is very diverse. According to Ruiz-Cancino *et al.* (2010), 1,440 genera and 5,974 species were recorded from the country to that date, but these numbers probably represent only a portion of what may exist there due to the small number of Mexican researchers working on Hymenoptera. *Erythmelus* Enock (Mymaridae) is a large cosmopolitan genus whose members are eggs parasitoids, mainly of Miridae and Tingidae. Some species are important in both classical biological control programs and as native regulators of agricultural pests (Triapitsyn 1997, 2003). Early efforts in the identification of the species in North America were made by Howard (1881), Girault (1911a, 1911b, 1915), Gahan (1937), and Doutt (1949), and in South America by Ogloblin (1934) and Soares (1942). In Mexico, identification keys to the genera of Mymaridae were given by Guzmán *et al.* (1991, 1997, 2001). Prior to this study, a large number of dry