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First record of Charipinae (Hymenoptera: Cynipoidea: Figitidae) from Tunisia

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A b s t r a c t : In this paper the following three species of Charipinae from Tunisia has been studied, including providing of collection data: *Alloxysta pilipennis* (HARTIG, 1840), *Alloxysta victrix* (WESTWOOD, 1833) and *Phaenoglyphis villosa* (HARTIG, 1841). This means the first records of the subfamily Charipinae and the genera *Alloxysta* and *Phaenoglyphis* from Tunisia.

K e y w o r d s : Charipinae, *Alloxysta*, *Phaenoglyphis*, Tunisia, first record.

Introduction

Members of the subfamily Charipinae (Hymenoptera: Cynipoidea: Figitidae) are characterized being very small wasps (0.8-2.0mm) with smooth and shiny body, antennae filiform and important reduction of wing venation. The taxonomy of the Charipinae has always been very complicated due to the few morphological characters that enable us to distinguish them, and the large number of described species, including many synonymies. This subfamily has been recently deeply studied. The type material of each species has been revised establishing the valid taxonomic state (FERRER-SUAY et al. 2012a, b; 2013a, b, c, d). Additionally, the Charipinae fauna present in every continent has also been studied, establishing new records and describing many new species (FERRER-SUAY et al. 2013e, f, g; 2014).

Eight genera of Charipinae are recognized in the world: *Alloxysta* FÖRSTER, 1869 (cosmopolitan), *Apocharips* FERGUSSON, 1986 (Palaearctic and Neotropical), *Dilapothor* PARETAS-MARTÍNEZ & PUJADE-VILLAR, 2006, (Australia), *Dilyta* FÖRSTER, 1869 (cosmopolitan except South America and Australia), *Lobopterocharips* PARETAS-MARTÍNEZ & PUJADE-VILLAR 2007 (Nepal), *Lytoxysta* KIEFFER, 1909 (North America), *Phaenoglyphis* FÖRSTER 1869 (cosmopolitan) and *Thoreauana* GIRAULT, 1930 (Australia). Both genera mentioned here, *Alloxysta* and *Phaenoglyphis*, are biologically characterized being hyperparasitoids of aphids via primary parasitoids Aphidiinae (Hymenoptera: Ichneumonoidea: Braconidae) and Aphelininae (Hymenoptera: Chalcidoidea: Aphelinidae) (MENKE & EVENHUIS 1991). For this reason, they are economically important affecting the biological control of the primary parasitoids through their host. Activity of Charipinae hyperparasitoids can modify the efficiency of these biological control agents in at least three ways: (i) increasing mortality of the primary parasitoid;

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(ii) increasing the growth rate of the aphid population indirectly; and (iii) increasing the propensity for primary parasitoids to disperse (VAN VEEN et al. 2001).

In this study we have identified material of Charipinae collected on *Aphis gossypii* (Hemiptera: Aphididae) from protected crop on pepper in Chott Mariem (Tunisia) (36°.48´N. 10°11´E) (25 May 1989) 1-15 June 1989. Three species have been identified: *Alloxysta pilipennis* (HARTIG, 1840) (2♀♀), *Alloxysta victrix* (WESTWOOD, 1833) (4♂♂ & 5♀♀) and *Phaenoglyphis villosa* (HARTIG, 1841) (4♀♀). The material is deposited in the University of Barcelona (J. P-V coll.).

Despite the Charipinae are well distributed, with respect to Tunisia no Charipinae species have been cited yet, thus these identifications suppose the first records of the subfamily Charipinae and the genera *Alloxysta* and *Phaenoglyphis* from Tunisia.

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Zusammenfassung

Vorliegende Arbeit behandelt das Vorkommen der Unterfamilie Charipinae (Hymenoptera: Cynipoidea: Figitidae) in Tunesien. Es gelang der Erstnachweis der Unterfamilie Charipanae und somit folgender drei Arten für dieses Land: *Alloxysta pilipennis* (HARTIG, 1840), *Alloxysta victrix* (WESTWOOD, 1833) und *Phaenoglyphis villosa* (HARTIG, 1841).

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