

## Short communication

**First record of *Alloxysta pleuralis* from Iran (Hym.: Cynipoidea: Figitidae: Charipinae)**

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## چکیده

طی نمونه‌برداری‌های انجام‌شده از زنبورهای پارازیتوید در استان مازندران، گونه *Alloxysta pleuralis* (Cameron, 1879) از خانواده Figitidae به عنوان پارازیتوید شته *Aphis gossypii* Glover روی درخت نارنج، *Citrus aurantium* L. (Rutaceae) در شهرستان جویبار جمع‌آوری و شناسایی شد. این زنبور پارازیتوید برای اولین بار از ایران گزارش می‌شود.

As the result of a field study based on the parasiting wasps of important citrus pests in Mazandaran province, Iran; a species of the genus *Alloxysta* Förster (Hym.: Cynipoidea: Figitidae: Charipinae) was collected. This genus is one of the eight genera that compose the subfamily Charipinae. The other seven genera are as follows: *Apocharips* Fergusson, *Dilapothor* Paretas-Martínez & Pujade-Villar, *Dilyta* Förster, *Lobopterocharips* Paretas-Martínez & Pujade-Villar, *Lytoxysta* Kieffer, *Phaenoglyphis* Förster and *Thoreauana* Girault. Members of the Charipinae are very small with smooth and shiny bodies, and small interspecific variability. They are widely distributed around the world.

*Alloxysta* is the most diverse genus within Charipinae, including 111 species (Ferrer-Suay *et al.*, 2012). Species of *Alloxysta* are hyperparasitoids of aphids (Hemiptera: Aphididae) via Aphidiinae (Hym.: Ichneumonoidea: Braconidae) and Aphelininae (Hym.: Chalcidoidea: Aphelinidae).

The study of Iranian Charipinae has been significantly improved in the recent years. Ferrer-Suay *et al.* (2013b) identified 15 species, of which the following nine species were first recorded from Iran: *Alloxysta arcuata* (Kieffer, 1902), *A. brevis* (Thomson, 1862), *A. castanea* (Hartig, 1841), *A. macrophadna* (Hartig, 1841), *A. melanogaster* (Hartig, 1840), *A. pusilla* (Kieffer, 1902), *A. ruficollis* (Cameron, 1883), *A. tscheki* (Giraud, 1860) and *A. ullrichi* (Giraud, 1860). Later, the species *A. ramulifera* (Thomson,

1862) was added to the list of charipine fauna of Iran (Ferrer-Suay *et al.*, 2013a).

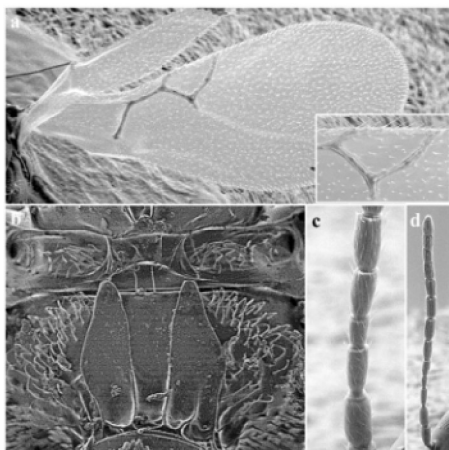
In order to collect and identify the parasitoid wasps of Caspian coast province of Mazandaran, the aphid infested branches were collected from 11 towns and transferred to the laboratory for rearing parasitoids during 2011-13. The emerged parasitoid wasps were transferred to 75% ethanol upon their emergence. Later, the species *Alloxysta pleuralis* (Cameron, 1879) was identified as a parasitoid of *Aphis gossypii* Glover, (Hem.: Aphididae) on *Citrus aurantium* L. (Rutaceae). This is the first report of *A. pleuralis* from Iran.

A total of nine *Alloxysta* specimens were collected in two samples of *C. aurantium* from Juybar (Mazandaran) on 23.4.2013. The specimens were superficially very close to those of *A. pleuralis*. This species is easily distinguished from other *Alloxysta* species by the following combination of characters: partially open radial cell (fig. 1, a); pronotal carinae present; two propodeal carinae reaching the base independently (fig. 1, b); female antenna: F1 longer than F2, F2 shorter than F3 and F3 shorter than F4 (fig. 1, c-d); male antenna: F1-F3 subequal in length and slightly curved.

The specimens have been deposited at the University of Barcelona: "Ex. *Citrus* sp., with Coccoidea, col. 23.4.2013", "Mazandaran (Iran), Leg. Zahra Feli", "*Alloxysta pleuralis* (Cameron, 1879) ♀ M. Ferrer-Suay det. 2013": (2 ♀♀).

*Alloxysta pleuralis* is widely distributed in the Palaearctic region and has been reported from England, France, Germany, Ireland, Israel, Norway, Poland,

Scotland and Spain (Ferrer-Suay *et al.*, 2012). It has also been recorded from India (Ahmad & Singh, 1996).



**Fig. 1.** *Alloxysta pleuralis*: (a) forewing and detail of the radial cell, (b) propodeal plate, (c) detail of the female antenna, (d) female antenna.

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