

Short communication

### Three new records of Megaspilidae (Hymenoptera, Ceraphronoidea) from Iran

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#### گزارش جدید سه گونه زنبور خانواده

#### Megaspilidae (Hymenoptera, Ceraphronoidea) از ایران

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#### چکیده

در پژوهش حاضر، تعداد ۳۰ نمونه از زنبورهای خانواده Megaspilidae (Hymenoptera, Ceraphronoidea) از نقاط مختلف استان فارس به وسیله تله مالیز جمع‌آوری و شناسایی شد که سه گونه *Dendrocerus laticeps* (Hedicke, 1929)، *D. perlucidus* Alekseev, 1983 و *Conostigmus fasciatipennis* Kieffer, 1907 برای اولین بار از ایران گزارش می‌شود.

واژگان کلیدی: پارازیتوئید، تاکسونومی، پراکنش.

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Megaspilidae (Hymenoptera, Ceraphronoidea) is a small family of parasitic wasps, it contains two subfamilies with 12 genera and about 299 species worldwide (Aguilar *et al.*, 2013). The species of the family are primary parasitoids and hyperparasitoids on a wide range of insects including Hemiptera, Thysanoptera, Coleoptera, Diptera, Hymenoptera, Trichoptera, Lepidoptera, Neuroptera and Mecoptera (Johnson & Musetti, 2004; Mikó & Deans, 2009; Mikó *et al.*, 2011; Trietsch *et al.*, 2015).

The fauna of Iranian Megaspilidae is currently poorly known. Until now, only four species in two genera of Megaspilidae including *Dendrocerus aphidum* (Rondani, 1877); *D. conwentziae* Gahan, 1919; *D. carpenteri* (Curtis, 1829) and *Megaspilus dux* (Curtis, 1829) have been reported from Iran (Gonzalez *et al.*, 1978; Alekseev & Radchenko, 2001; Rakhshani *et al.*, 2005; Rezaei *et al.*, 2006; Rakhshani *et al.*, 2010; Darsoei *et al.*, 2011; Jafari & Modarres Awal, 2012).

The current study is based on specimens collected by Malaise-traps from different areas of the Fars province in southern Iran. The specimens were identified by Dr. Istvan Mikó. The

voucher specimens are deposited at the Department of Entomology, Jahrom Branch, Islamic Azad University, Jahrom, Iran (JIAU) and in the collection of the North Carolina State University, USA (NCSU).

We collected four species of two genera belonging to the subfamily Megaspilinae as follows:

***Dendrocerus aphidum* (Rondani, 1877)**

**Specimens examined:** 2 ♂, 7 ♀, Fars province, Khonj (27°53'31"N, 53°26'42"E), 6.iv.2013, leg. M. Atbaei; 1 ♂, same data, 20.vi.2013; 1 ♀, Fars province, Kherameh (29°30'51"N, 53°18'40"E), 13.vi.2013, leg. E. Izadi; 2 ♂, Fars province, Larestan (27°38'N, 54°16'E), 5.v.2013, leg. A. Falahatpisheh.

**General distribution:** Cosmopolitan (Dessart, 2001; Johnson & Musetti, 2004; Mikó *et al.*, 2011).

**Remarks:** The genus *Dendrocerus* Ratzeburg is a worldwide large genus including over 100 species and 37 of them are recorded from the Palaearctic region (Johnson & Musetti, 2004). Members of the genus recognized by: presence of a posterior mesotibial spur, subdivision of the metasomal synsternum, bifurcated calcar, parossiculus distolaterally separated from gonostipes, 9 female flagellomeres, pterostigma and occipital depression, absence of Waterston's organ and axillar setae (Mikó *et al.*, 2011). As far as their biology is known, the species of the genus *Dendrocerus* are commonly hyperparasitoids of aphids (Fergusson, 1980; Mikó *et al.*, 2011).

In Iran, *D. aphidum* has already been recorded as *D. breadalbimensis* (Kieffer, 1907) (Gonzalez *et al.*, 1978).

***Dendrocerus laticeps* (Hedicke, 1929)**

**Specimens examined:** 2 ♂, Fars province, Khonj (27°53'31"N, 53°26'42"E), 2.iii.2013, leg. M. Atbaei; 3 ♀, 4 ♂, same data, 6.iv.2013; 1 ♀, same data, 11.v.2013; 3 ♀, same data, 20.vi.2013; 1 ♂, Fars province, Kherameh (29°30'51"N, 53°18'40"E), 12.vi.2013, leg. E. Izadi

**General distribution:** Cosmopolitan (Dessart, 2001; Johnson & Musetti, 2004).

**Remarks:** In the Palaearctic region, *Dendrocerus laticeps* has previously been reported from Europe, China, Japan, Iraq (Dessart, 2001) and hereby it is a new species record for Iran.

***Dendrocerus perlucidus* Alekseev, 1983**

**Specimens examined:** 1 ♀, Fars province, Khonj (27°53'31"N, 53°26'42"E), 2.iii.2013, leg. M. Atbaei

**General distribution:** Afrotropical region (Africa, UAE) and Palaearctic region (Europe) (Dessart, 2001; Johnson & Musetti, 2004; Mikó *et al.*, 2011).

**Remarks:** *Dendrocerus perlucidus* is a new species record for Iran. Recently, two species *D. aphidum* and *D. perlucidus* were re-described by Mikó *et al.* (2011).

***Conostigmus fasciatipennis* Kieffer, 1907**

**Specimens examined:** 2 ♂, Fars province, Kherameh (29°30'51"N, 53°18'40"E), 13.vi.2013, leg. E. Izadi; 1 ♀, Fars province, Khonj (27°53'31"N, 53°26'42"E), 20.vi.2013, leg. M. Atbaei

**General distribution:** Palaearctic region (Europe).

**Remarks:** The genus *Conostigmus* includes more than 172 known species and about 97 species have been reported from the Palaearctic region (Johnson & Musetti, 2004; Bijoy *et al.*, 2014; Mikó *et al.*, 2016). A few studies have been conducted on the biology of the members of this genus. Species of the genus have been reared from puparia of Syrphidae and eggs and larvae of Cecidomyiidae (Trietsch *et al.*, 2015). Members of the genus are recognized by the following characters: mesonotum roundish anteriorly and constricted toward the head; parapsidal grooves curved smoothly toward the anterior angles of the mesonotum, segments of the antennal funicle of males cylindrical, forms usually with rudimentary or reduced wings (Alekseev, 1987). Here, *Conostigmus fasciatipennis* is a new species record for Iran.

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