

Short communication

Two new records of encyrtids as parasitoid of *Sphaerolecanium prunastris* (Hem.: Coccidae) in Iran

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چکیده

این تحقیق در سال ۱۳۸۴ به منظور شناسایی زنبورهای پارازیتوید شیشک *Sphaerolecanium prunastris* Boyer de Fonscolombe (Hem.: Coccidae) در استان خراسان رضوی انجام شد. نمونه برداری به صورت دوهفته یکبار از هفت منطقه شامل مشهد، نیشابور، تربت حیدریه، فریمان، شیروان، اسفراین و کلات نادر انجام شد. هشت گونه زنبور پارازیتوید در این مناطق شناسایی شد که دو گونه *Discodes coccophagus* و *Cheiloneurus claviger* Thomson (Ratzeburg) از خانواده Encyrtidae برای اولین بار از ایران گزارش می شوند.

The plum scale insect, *Sphaerolecanium prunastris* Boyer de Fonscolombe (Hem.: Coccidae) is an economically important pest of the prunaceous trees that has a wide distribution throughout Europe, North America and Asia (Kosztarab & Kozar, 1988). In Iran, the pest has been found from lowlands in Semnan and Markazi provinces to the mountains in Theran, Kermanshahm, Kordestan and is probably distributed in other parts of Iran (Radjabi, 1989).

A survey was conducted to identify the parasitoids of *S. prunastris* in the Khorasan-e-Razavi province during a period of April to September 2005. Samples were collected from seven localities: Mashhad, Neyshabour, Torbat-e-Heydariyeh, Fariman, Shirvan, Esfarayen and Kalat-e-Nader. Samples were kept at room temperature (20-25°C) in transparent plastic boxes until the adult parasitoids were emerged. Eight parasitoid wasps were collected and identified in the studying areas, among them 2 species, *Discodes coccophagus* (Ratzeburg) and *Cheiloneurus claviger* Thomson (Hym.: Encyrtidae) are newly recorded from Iran. The former wasp was one of the most commonly parasitoid of *S. prunastris* that was collected from all investigated localities; however, the latter wasp was only collected from Shirvan and Esfarayen in small numbers. The parasitoid species were identified by the last author. The relative frequency of *D. coccophagus* and *C. claviger* was recorded as 14.23% and 0.13% out of the total samples, respectively. A brief description of the female morphological characters is presented for two newly recorded parasitoids:

***Discodes coccophagus* (Ratzeburg)**

Material examined – Khorasan-e-Razavi: Mashhad, 26.IV.2005, 10 ♀♀, 7 ♂♂; 13.V.2005, 12 ♀♀, 14 ♂♂; 14.VII.2005, 7 ♀♀; Neyshabour, 19.V.2005, 3 ♀♀, 1 ♂; Fariman, 13.VII.2005, 12 ♀♀, 18 ♂♂; 24.VII.2005, 16 ♀♀, 11 ♂♂; 13.VIII.2005, 15 ♀♀, 7 ♂♂; Torbat-e-Heydariyeh, 31.V.2005, 23 ♀♀, 15 ♂♂; 1.VII.2005, 52 ♀♀, 34 ♂♂; 21.VII.2005, 63 ♀♀, 26 ♂♂; 21.VIII.2005, 40 ♀♀, 17 ♂♂; Shirvan, 26.VI.2005, 39 ♀♀, 24 ♂♂; 27.VII.2005, 71 ♀♀, 36 ♂♂; 16.VIII.2005, 48 ♀♀, 37 ♂♂; Esfarayen, 11.V.2005, 9 ♀♀, 5 ♂♂; 21.VI.2005, 10 ♀♀, 5 ♂♂; Kalat-e-Nader, 27.V.2005, 16 ♀♀, 12 ♂♂; 27.VI.2005, 18 ♀♀, 19 ♂♂; 7.VII.2005, 6 ♀♀, 4 ♂♂ (Leg. F. Hassanpour).

Female – Body length 0.9 to 1 mm.; dark brownish to black; fronto-vertex and face with numerous pits, the diameter of each pit at least about the same as that of the median ocellus, compound eye with a few and very short setae; antenna 11-segmented with 3-segmented club, scape more than four times as long as widest broad, antennae inserted distinctly below lower margins of compound eye; notaular lines absent; apex of scutellum with a marginal flange; forewing infusate except the apex broadly hyaline.

***Cheiloneurus claviger* Thomson**

Material examined – Khorasan-e-Razavi: Shirvan, 27.VII.2005, 8 ♀♀, 3 ♂♂; Esfarayen, 21.VI.2005, 3 ♀♀, 3 ♂♂ (Leg. F. Hassanpour).

Female – Body length 1.5 to 1.7 mm, light brown; antenna 11-segmented, scape ventrally expanded and 3.6 times as long as wide, pedicel two times as long as first funicular segment, clava 3-segmented and about as long as the third-sixth funicular segments combined; forewing with marginal vein long and stigmal vein short, postmarginal vein less than twice as long as marginal vein; scutellum without an apical flange; mesoscutum without notauli, scutellum with tuft of long setae at the apex.

Davoodi *et al.* (2004a, 2004b) have been reported five parasitoid species of *S. prunastri*, consist of *Coccophagus lycimnia* (Walker) (Hym.: Aphelinidae), *Blastothrix sericea* (Dalman), *Cerapterocerus mirabilis* Westwood, *Microterys hortulanus* Erdős and *Encyrtus lecaniorum* (Mayr) (Hym.: Encyrtidae) from Tehran province.

The genus *Discodes* Förster is best known through *D. coccophagus* in certain parts of Palaearctic region (Ben-Dov & Hodgson, 1997). This species has previously been reported on *S. prunastri* from Turkey and Georgia (Japoshvili & Karaca, 2002), Turkmenistan (Trjapitzin,

1989), Sweden (Hedqvist, 2003) and some other parts of Europe (Trjapitzin, 1978; Noyes, 2006).

The genus *Cheiloneurus* Westwood appears to be one of the largest and most diverse encyrtid genera. The species of the genus *Cheiloneurus* is well represented in the Palaearctic, Oriental and Australian regions (Ben-Dov & Hodgson, 1997). The species *C. claviger* has been reported on *S. prunastri* from different countries in the Palaearctic (Myartseva, 2000; Trjapitzin, 1978) to the oriental region (Trjapitzin, 1989; Xu *et al.*, 1996).

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