Short communication

Apanteles laspeyresiellus (Hymenoptera: Braconidae), a new record for Iran insect fauna

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چکیدہ

این تحقیق در سال ۱۳۸۵ به منظور شناسایی زنبورهای یارازیتویید لارو کرم گلوگاه انار، Ectomyelois ceratoniae (Zeller) (Lep.: Pyralidae: Phycitinae) در روستای حسن آباد واقع در ٥٠ کیلـومتری جنـوب شـهر قـم انجـام شـد. در نتيجـهي ايـن تحقيـق، دو گونـه زنبـور از خـانوادهي Braconidae شـامل (Bay) hebetor (Say و Bracon) و Apanteles laspeyresiellus Papp جمع آوری و شناسایی شد که گونهی دوم برای اولین بار از ایران گزارش می شود.

The carob moth, Ectomyelois ceratoniae (Zeller) (Lep.: Pyralidae: Phycitinae) is the most important pest of pomegranate fruit in Iran (Mozafarian et al, 2007). It also attacks to other host plants such as fig (Shakeri, 1993) and pistachio (Mehrnejad, 2002).

Because there was no previous information on larval parasitoids of *E. ceratoniae* in Iran, a study was conducted to identify the larval parasitoids in Ghom Province in 2006. Fruit samples were collected from a pomegranate orchard in Hasnabad village (located in 50 km south of Ghom city) from 23 October until 6 November. Samples were kept in a growth chamber at temperature $30 \pm 1^{\circ}$ C and relative humidity of $70 \pm 5\%$ until the adult parasitoids were emerged. Two parasitoid species: Bracon (Habrobracon) hebetor (Say) and Apanlteles laspeyresiellus Papp (Hym.: Braconidae) were collected and identified. The latter species is newly recorded for the fauna of Iran. The parasitoid species were identified by the last author. The specimens were deposited in the collection of the Department of Entomology at Tarbiat Modares University in Tehran.

A total of 105 adults (42 males and 63 females) of A. laspeyresiellus were emerged from 876 sampled larvae. The female of A. laspeyresiellus can be distinguished using following characters: body length (excluding ovipositor and sheaths) 2.9-3.1 mm; fore wing length 2.8-3 mm; body generally black, except palpi and legs light brown; wings hyaline, most veins nearly colourless except C, Sc, R, R1 and stigma that are brownish to varying degrees; face nearly wider than high; antennae shorter than body, filiform and 18-segmented; maxillary

palp 5-segmented; front tibia with one spur but middle and hind tibiae with two apical spurs; all tarsi 5-segmented.

The *A. laspeyresiellus* has previously been reported from Bulgaria, Turkey, Hungary and Austria; however, no data are available on its biological characteristics (Anonymous, 2007). Previous investigations have shown that two larval parsitoids, *Goniozus legneri* (Gordh) (Hym.: Bethylidae) (Zaviezo *et al.*, 2007) and *Pentalitomastix plethoricus* (Caltagirone) (Hym.: Encyrtidae) (Gothilf, 1978) play an important role in the control of carob moth in the south and central America, respectively. In Iraq, six parasitoid species of *E. ceratoniae* have been reported. Of these, *Apanteles* sp. group *ultor* is determined as dominant species (Al-Maliky & Al-Izzi, 1986). Our finding may be beneficial for success in biological control of the carob moth in Iran.

References

- Al-Maliky, S. K. & Al-Izzi, M. A. J. (1986) Parasites of *Ectomyelois ceratoniae* with biological studies on *Apanteles* sp. group *ultor* in Iraq. *Entomophaga* 31, 313-319.
- Anonymous (2007) Global biodiversity information facility (GBIF). Available on: *http://www.gbif.org* (accessed 2 July 2007).
- **Gothilf, S.** (1978) Establishment of the imported parasite *Pentalitomastix plethoricus* (Hym: Encyrtidae) on *Ectomyelois ceratoniae* (Lep: Phycitidae) in Israel. *Entomophaga* 23, 299-302.
- Mehrnejad, M. (2002) Biology of carob moth, *E. ceratoniae* new pest on pistachio in Rafsanjan. *Applied Entomology and Phytopathology* 60, 1-11.
- Mozaffarian, F., Sarafrazi, A. & Nouri Ganbalani, G. (2007) Host plant-associated population variation in the carob moth *Ectomyelois ceratoniae* in Iran: a geometric morphometric analysis suggests a nutritional basis. *Journal of Insect Science* 7, Article 2.
- **Shakeri, M.** (1993) First report of attack of *Spectrobates ceratoniae* Zell. to figs in Iran. *Applied Entomology and Phytopathology* 60, 29.
- Zaviezo, T., Romero, A., Castro, D. & Wagner, A. (2007) First record of *Goniozus legneri* (Hymenoptera: Bethylidae) in Chile. *Ciencia e Investigation Agrari* 34, 49-52.

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