

Short communication

First record of *Leucopis (Leucopis) spyrothecae* (Dip.: Chamaemyiidae) from Iran

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چکیده

طی نمونه برداری های انجام شده از دشمنان طبیعی شته ها در اردیبهل طی سال های ۹۱-۱۳۹۰، لاروهای مگس شکارگر از خانواده Chamaemyiidae در حال تغذیه از شته *Pemphigus spyrothecae* Passerini روی درخت صنوبر، *Populus nigra* (L.) جمع آوری و پس از پرورش در شرایطی مشابه شرایط محل جمع آوری، حشرات کامل به نام *Leucopis (Leucopis) spyrothecae* Raspi, 2003 شناسایی شدند. این گونه برای اولین بار از ایران گزارش می شود.

The members of the dipteran family Chamaemyiidae are small, generally silvery grey flies (1-5 mm long), with black spots on the abdomen, found in all zoogeographical regions, although the majority of species are known from the Palaearctic region. Our overall knowledge about this family in the Palaearctic region is still poor, partly due to difficulties in collection and species determination, in particular with regard to females (Triplehorn & Johnson, 2005; Raspi & Ebejer, 2008; Gaimari, 2012). This family includes more than 140 species in the Palaearctic region and only a few species have already been recorded from Iran (Ghadiri Rad *et al.*, 1999, Rakhshani *et al.*, 2010).

During a survey on the natural enemies of aphids in Ardabil during 2012-13, chamaemyiid larvae were found feeding on the aphid *Pemphigus spyrothecae* Passerini on *Populus nigra* (L.). They were collected and reared in the same condition until the adults of *Leucopis (Leucopis) spyrothecae* Raspi, 2003 emerged in April 2012 and April 2013. This species is newly recorded from Iran.

The genus *Leucopis* Meigen is placed in the subfamily Leucopinae and distinguished from the genus *Lipoleucopis* de Meijere by its costal vein meeting vein M and usually lack of prescutellum (McClean, 1998). The species *L. (Leucopis) spyrothecae* can be separated from related species by the combination of following characters: mesonotum with weak, dark grey median stripes and shaded greyish-brown dorsocentral vittae; three pairs of posterior dorsocentral setae, anterior dorsocentral setae shorter than posterior ones; abdominal tergites III-V with dense stout setulae; distal half of aedeagus tapered; female sternite VI kidney-shaped, sternite VII with two symmetrical sclerites; tergite VII reduced with anteriorly narrow, transverse, weakly sclerotized band bending backwards laterally; spermatheca spherical, strongly sclerotized (fig. 1, A-F).

Material examined – 47 ♀♀, 29 ♂♂, IRAN: Ardabil province, N 38°19'32", E 48°25'28", 1315 m., 5.iii.2013, leg. M. Ghafouri Moghaddam.

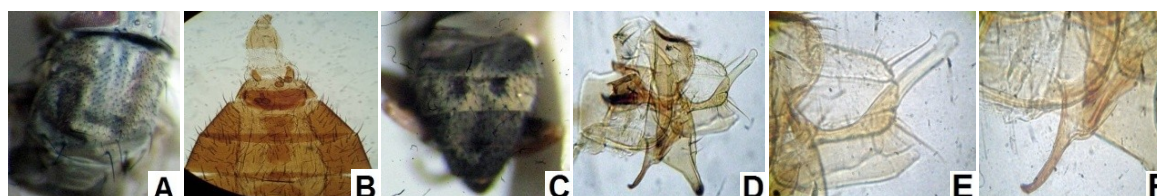


Fig. 1. *Leucopis (Leucopis) spyrothecae*, female: (A) dorsal view, (B) terminalia in ventral view; male: (C) dorsal view of abdomen, (D) anterior paramere, (E) phallus, (F) genitalia.

Raspi (1995) misidentified *L. (Leucopis) spyrothecae* as *L. (Leucopis) steinbergi* Tanasijtshuk. The former species is also superficially similar to *Leucopis bursaria* (Rondani), except for the characteristic morphology of its mesonotum (Raspi, 2003).

References

- Gaimari, S. D.** (2012) A new genus and species of Chamaemyiidae (Diptera: Lauxanioidea) from South America feeding on *Ceroplastes* wax scales (Hemiptera: Coccidae), and status of the genus *Ortalidina* as a chamaemyiid. *Zootaxa* 3342, 39-50.
- Mclean, I. F.** (1998) Family Chamaemyiidae. pp. 415-423 in Papp, L. & Darvas, B. (Eds) *Contribution to a manual of Palaearctic Diptera*. Vol. 3, 880 pp. Science Herald, Budapest.
- Ghadiri Rad, S., Hatami, B. & Gharaei, B.** (1999) New record of predacious fly, *Leucopis (Leucopis) glyphinivora* Tanasijtshuk (Diptera: Chamaemyiidae) from Iran. *Journal of Entomological Society of Iran* 18(1/2), 46.
- Rakhshani, H., Ebadi, R. & Gharali, B.** (2010) The first report of silver fly, *Leucopis argentata* (Diptera: Chamaemyiidae) from Iran. *Journal of Entomological Society of Iran* 29(2), 35-36.
- Raspi, A.** (1995) Famiglia Chamaemyiidae. pp. 6-7 in Nartshuk, E. P., Papp, L., Raspi, A. & Rivosecchi, L. Diptera Nerioidea, Diopsoidea, Lauxanioidea. In Minelli, A., Ruffo, S. & La Posta, S. (Eds) *Checklist delle specie della fauna italiana*, 73, 8 pp. Calderini, Bologna.
- Raspi, A.** (2003) On the identity of *Leucopis (L.) bursaria* and description of a new species: *Leucopis (L.) spyrothecae* (Diptera, Chamaemyiidae). *Bollettino della Società Entomologica Italiana* 135(2), 101-108.
- Raspi, A. & Ebejer, M. J.** (2008). New records of Diptera Chamaemyiidae from the Mediterranean and Oman with a description of a new species: *Parochthiphila (Euestelia) argentiseta* from Turkey and a redescription of *Parochthiphila (Parochthiphila) inconstans* (Becker). *Entomologica Fennica* 19, 55-64.
- Triplehorn, C. A. & Johnson, N. F.** (2005) *Borror and DeLong's introduction to the study of insects*. 7th ed. 864 pp. Thomson Brooks/Cole.

Received: 15 June 2013

Accepted: 8 February 2014