

***Diplolepis fructuum* (Rübsaamen) (Hym.: Cynipidae) a new host for *Exeristes roborator* (Fabricius) (Hym.: Ichneumonidae) in Iran**

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Abstract. An ichneumonid wasp was reared as an associated parasitoids of rose gall wasp *Diplolepis fructuum* (Rübsaamen, 1882) (Hym.: Cynipidae) in Iran. It was identifies under *Exeristes roborator* (Fabricius, 1793). The *Diplolepis fructuum*- *Exeristes roborator* association is new.

Key words: *Exeristes roborator*, Ichneumonidae, new host, *Diplolepis fructuum*, Rose gall, Iran

Diplolepis fructuum (Rübsaamen, 1882) (Hym.: Cynipidae) can cause great damage to wild rose, *Rosa canina* Linnaeus. Its galls are host of large insect communities and recent study of Lotfalizadeh et al. (2006) showed there are 17 species of Chalcidoidea and Ichneumonidae which associate with *D. fructuum* in the northwest of Iran. Also Askew et al. (2005) quoted 16 species as parasitoids of *Diplolepis mayri* (Schlechtendal) in Iran. In the Palaearctic region, this community includes 45 species of parasitoids in 18 genera that are associated with *Diplolepis* species on *Rosa* spp.

We know two species [*Orthopelma brevicorne* Morley, 1907 and *O. mediator* (Thunberg, 1882)] from the

subfamily Orthopelmatinae associated with rose gall of *D. fructuum* in the Palaearctic region but within recently collected rose galls we reared an unknown ichneumonid species. Based on preceding studies, *O. mediator* (Talebi et al. 2004, Lotfalizadeh et al. 2006) and *Exeristes roborator* reported as parasitoid wasps of *Diplolepis* sp. on rose in Iran (Talebi et al. 2005).

Examination of the parasitoid wasp species reared in this research by third author showed it is a nominal ichneumonid namely *Exeristes roborator* (Fabricius, 1793) including to Pimplinae. Generic identification was accomplished by using Townes, 1969. Image was captured using a Microptic digital camera system.

***Exeristes roborator* (Fabricius, 1793)**

Ephialtes storai Hellen, 1949

Ichneumon extensor Linnaeus, 1758

Ichneumon instigator Rossi, 1790

Pimpla blattifera Tosquinet, 1896

Pimpla caudate Smith, 1863

Pimpla cicatricosus Ratzeburg, 1848

Pimpla flavipennis Enderlein, 1919

Pimpla longicauda, Brulle, 1832

Pimpla nodosa Rudow, 1883

Pimpla nurse Cameron, 1906

Pimpla punctata Fabricius, 1881

Pimpla pyraustae Okamoto, 1921

Pimpla roboratrix Schulz, 1906

Pimpla robusta Morely, 1908

Pimpla schmiedeknechti Kriechbaumer, 1888

Xorides aegyptius Walker, 1871

Distribution: *E. roborator* is a common species that is widely distributed in the Palaearctic region, already known in Iran (Townes et al. 1965, Momoi 1973, Aubert 1969, Kasparyan 1981, Selefa et al. 1999, Talebi et al. 2004, Kolarov and Ghahari 2005). It occurs in 72 countries and was introduced to Canada, Guam, Mexico, Puerto Rico and U.S.A. as a biocontrol agent (Yu et al. 2005). Masnadi-Yazdinejad and Jussila (2008) summarized its bibliographic reports in a Table and its distribution was mapped. Based on their survey it was collected from Zanjan and Chahar-Mahal-Bakhtyari Provinces in Iran that in the present report we add Azarbaijan-e-Sharghi Province, as well.

Morphology (Female): Body relatively elongate (14 mm); Face black. Clypeus weakly convex, 1.8 as wide as long; median longitudinal carinae of propodeum distinct on basal 0.3 of propodeum; forewing 7mm long; first tergite short and broad; ovipositor sheath about 1.4 as long as front wing, ovipositor straight and cylindrical (Fig. 1).

Biology: It is a polyphagous ectoparasitoid wasp and its hosts are mainly of Lepidoptera, Coleoptera and Hymenoptera larvae. Among the family Cynipidae, it is known only as a parasitoid of *Biorhiza pallida* (Olivier, 1791) and *Biorhiza terminalis* Hartig, 1840 on oak (*Quercus*), *Diplolepis rosae* (Linnaeus) on rose (*Rosa*) (Fulmek 1968, Talebi et al. 2005, Rizzo and Massa 2006) and *Barbotinia (Aylax) oraniensis* (Barbotin) (Pisică and Popescu 2009). About 77 insect species introduced as hosts for this species (Yu et al. 2005). In this report, we report a new host relationship for *Exeristes roborator* in Iran. It may be a primary parasitoid of *Diplolepis fructuum* [such as *Orthopelma mediator* and *Gregopimpla inquisitor* (Scopoli)] (Pisică and Popescu 2009). Studied specimens exited in March-June from the galls induced the previous year, in the laboratory condition.

Several plant species have been recorded as associated host plants for this ichneumonid species (Yu et al. 2005), this research let us to add *Rosa canina* as a new associated host plant of *E. roborator*.



Figure 1. *Exeristes roborator* (Female) searching on rose galls of *Diplolepis fructuum*.

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