



New species of herb gallwasps from the Middle East (Hymenoptera, Cynipidae, Aylacini)

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Abstract

Four new species of cynipid herb gallwasps, *Aulacidea tavakolii* Melika, **new species**; *Isocolus freidbergi* Melika, **new species**; *Isocolus beheni* Melika & Karimpour, **new species** and *Isocolus karimpouri* Melika & Tavakoli, **new species** (Hymenoptera: Cynipidae: Aylacini) from Iran and Israel are described. Data on the diagnosis, distribution and biology of the new species are given. Seven species of aylacine gallwasps were known from the Middle East. One species, *Isocolus centaureae* Diakontschuk, reported for the first time from this region.

Key words: Cynipidae, gallwasp, Aylacini, *Isocolus*, *Aulacidea*, morphology

Introduction

The gallwasps (Hymenoptera: Cynipidae) are divided into two main trophic groups: the gall-inducers, and the gall-associated inquilines, which together make up 6 tribes (Liljeblad & Ronquist 1998; Csóka *et al.* 2004). The gall-inducers are divided into 5 tribes, one of which is Aylacini, known to induce galls on different herbaceous plants (Asteraceae, Rosaceae, Lamiaceae, Papaveraceae, Apiaceae, Valerianaceae, Brassicaceae). The “Aylacini” is a basal paraphyletic assemblage within the Cynipidae (Ronquist 1999), which have been revised several times (Weld 1952; Eady & Quinlan 1963; Nieves-Aldrey 1994) and according to a recent review (Melika 2006) comprises 122 species.

The aylacine gallwasp fauna of the Middle East is nearly unknown. The world catalogue of Cynipidae (Dalla Torre & Kieffer 1910) listed no Aylacini species for this region as well as Weld (1952). Seven species of Aylacini gallwasps were known from the Middle East and Iran till now:

—*Aulacidea acroptilonica* Tyurebaev. Galls on *Acroptilon repens* (L.) DC (Asteraceae). Known from Iran (Western Azarbaijan, Urmia) (Melika 2006; Melika & Karimpour 2008) and recently found also in Lorestan (Zalian, M. Tavakoli, *pers. obs.*).

—*Aulacidea irani* Melika & Gharaei. Galls are unknown. Adult wasps were swept in mid-May on *Echinops robustus* (Bunge) (Asteraceae). Known from Iran (Ilam province) (Melika & Gharaei 2006).

—*Hedickiana levantina* (Hedicke). Galls on *Salvia syriaca* L. (Lamiaceae); known from Iran (Eastern Azarbaijan, S.E. Sadeghi, *pers. comm.*) (Melika 2006), Syria, Jordan and Israel (Nieves-Aldrey & Massa 2006).

—*Isocolus cirsii* Diakontschuk. Galls are in flower heads of *Cirsium arvense* (L.) Scop. and *Centaurea*