

Article

First description of the male of *Transeius avetianae* (Arutunjan & Ohandjanian) (Mesostigmata: Phytoseiidae) and redescription of the female

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Abstract

The male of *Transeius avetianae* (Arutunjan & Ohandjanian), collected in Zanjan Province, Iran is described for the first time. The female is re-described from a collection large enough (n = 67) to examine morphometric variations. The measurements of female morphological characters collected from Iran are compared with those given in the original description from Armenia. A key to the species of *Transeius* recorded from Iran is also given.

Key words: Iran, Male, Phytoseiidae, Re-description, *Transeius avetianae*

Introduction

Phytoseiid mites are predators of spider mites and other small mites and insects. Some species also feed on nematodes, fungal spores, pollen and exudates from plants, but rarely plant tissue (Chant 1985, 1992; Overmeer 1985). Several members of this family are of great importance in the biological control of spider mites and thrips in greenhouse crop production (Gerson *et al.* 2003; Zhang 2003). The Phytoseiidae is a large family with worldwide distribution. About 2300 species belonging to over 90 genera are known in the world (Beaulieu *et al.* 2011; Chant & McMurtry 2007). From Iran, more than 70 species of Phytoseiidae have been reported as new species or new records (Khalil-Manesh 1973; McMurtry 1977; Sepasgosarian 1977; Daneshvar 1980, 1987; Daneshvar & Denmark 1982; Hajizadeh *et al.* 2002; Kolodochka *et al.* 2003; Faraji *et al.* 2007; Rahmani *et al.* 2010). The genus *Transeius* Chant and McMurtry of the subfamily Amblyseinae (Mesostigmata: Phytoseiidae) has 43 nominal species. Three species, belonging to the genus, are recorded from Iran (Faraji *et al.*, 2007; Rahmani *et al.*, 2010). Chant and McMurtry (2004) created this genus for those amblyseine species having the following morphological characters: ratio of seta s_4 more than three times longer than Z_1 , seta ratio $s_4:S_2 < 2.7:1$, setae S_5 present, setae z_2, z_4, S_4, S_5 and dorsocentral setae short to minute, and setae s_4, Z_4 and Z_5 prominent. All the species have the female idiosomal setal pattern 10A:9B/JV –3: ZV, with 33 pairs of setae. Most species in the genus were collected in the Northern Hemisphere (Chant & McMurtry 2007).

During a survey to determine the diversity of Phytoseiidae species in Zanjan county of Iran, in 2010–2011, the species *Transeius avetianae* Arutunjan and Ohandjanian (1972) was collected from the habitats of rotten wood, leaf litter, soil under fruit trees and fungi. *Transeius avetianae* was