

Article

A new species and new record of *Stigmaeus* Koch (Acari: Stigmaeidae) from northwest Iran

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Abstract

A new species of *Stigmaeus* Koch (Acari: Stigmaeidae), *S. haddadi* n. sp., is described and illustrated. This species was collected from soil in apple orchards at Miandoab, West Azerbaijan Province, Iran. *Stigmaeus pulchellus* Kuznetsov is recorded for the first time in Iran, and is redescribed.

Key words: Acari, Stigmaeidae, *Stigmaeus*, West Azerbaijan, new species, new record

Introduction

Stigmaeidae is the second most important family of predatory mite, after Phytoseiidae (Santos & Laing, 1985). These small red, yellow or orange mites occur in many habitats and form an important component of the acarofuna of soil, litter and plants (Summers, 1966). It is a large cosmopolitan group that consists of predators feeding on a variety of arthropods, ectoparasites of dipterans and pollen feeders (Summers, 1966; Ueckermann & Meyer, 1987; Walter *et al.*, 2009), with a diversity of 30 genera and over 500 species (Zhang *et al.* 2011) The genus *Stigmaeus* Koch is one of the most important genera of this family and is represented by just 11 species in Iran, namely: *S. unicus* Kuznetsov; *S. alvandis* Khanjani & Ueckermann; *S. elongatus* Berlese; *S. candidus* Fan & Li; *S. malekii* Haddad, Bagheri & Khanjani.; *S. pilatus* Kuznetsov; *S. shabestariensis* Haddad, Lotfollahi & Akbari; *S. shendabadiensis* Haddad, Akbari & Lotfollahi; *S. boshroyehensis* Khanjani, Izadi, Fayz, Raisi, Rostami & Dogan; *S. marandiensis* Bagheri & Ueckermann; and *S. ueckermanni* Yali, Khanjani & Razmjou (Khanjani *et al.*, 2010; Bagheri *et al.*, 2011; Yali *et al.*, 2011). In this paper, a new species, *S. haddadi* n. sp., and a new record, *Stigmaeus pulchellus* Kuznetsov, 1978, are added to the Iranian stigmaeid mite fauna.

Materials and methods

Mites were extracted from the soil using a Berlese funnel; specimens were cleared in Nesbitt's fluid, mounted in Hoyer's medium (Walter & Krantz, 2009) and examined under 1000x magnification of an Olympus Bx40 phase-contrast microscope. The length of the idiosoma was measured from the base of the chelicerae to the posterior margin of the suranal shield; the width of the idiosoma was measured at the broadest part. The leg measurements were taken from the base of the coxa to the tip of the pretarsus. Setae were measured from their insertions to their tips; distances between setae were measured between their insertions. The terminology and abbreviations follow Kethley (1990). All measurements are given in micrometers (μm).