



## A new stigmaeid mite species from Iran (Acari: Stigmaeidae) and re-description of *Stigmaeus longipilis* (Canestrini)

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### Abstract

A new species of the genus *Stigmaeus*, *S. ueckermanni* sp. nov., is described and illustrated, and *S. longipilis* (Canestrini) is recorded for the first time from Iran and re-described. Both species were collected from soil under hazelnut trees, *Corylus avellana* L. (Betulaceae) in Ardabil province, Iran. A key to the Iranian species of *Stigmaeus* is provided.

**Key words:** Acari, Stigmaeidae, *Stigmaeus*, predatory mites, Iran

### Introduction

Members of the Stigmaeidae are found on foliage, branches, trunks (tree bark and holes), moss, lichen and in litter, and soil. The diets of most species are not known, but most stigmaeids are generalist predators and some species are important biological control agents of spider mites, false spider mites, eriophyid mites, and crawlers of scale insects in agriculture and forestry areas (Gerson *et al.* 2003). The biology of the Stigmaeidae was reviewed by Santos & Laing (1985) in relation to their role as predators of Tetranychidae. The biology and application of Stigmaeidae in biological control were discussed by Gerson & Smiley (1990) and updated by Gerson *et al.* (2003). Currently the Stigmaeidae comprises 32 genera, of which *Stigmaeus* is the largest. Nine species of the genus *Stigmaeus* have been reported from Iran, namely: *S. alvandis* Khanjani & Ueckermann, 2002, *S. unicus* Kuznetsov, 1977 (Khanjani & Ueckermann, 2002); *S. elongatus* Berlese, 1886 (Khanjani & Ueckermann, 2002); *S. candidus* Fan & Li, 1993 (= *S. mazandaranicus* Faraji & Ueckermann, 2006); *S. malekii* Haddad *et al.*, 2006; and *S. pilatus* Kuznetsov, 1978; *S. shabestariensis* Haddad *et al.*, 2010a; *S. shendabadiensis* Haddad *et al.*, 2010b and *S. marandensis* Bagheri *et al.* 2011. In this paper the ninth species, *S. ueckermanni* sp. nov. is described and *S. longipilis* (Canestrini) recorded for the first time from Iran and re-described hereunder.

### Material and methods

Type materials were collected from soil under fruitless hazelnut trees in Fondoghlo National Park Jungle (38° 26' 85" E, 48° 34' 28" N, 1316 a.s.l.) and Hayran road (48° 18' 5" E, 38° 14' 5" N, 1500 a.s.l.), Ardabil, Ardabil province, Iran, mounted in Hoyer's medium (Walter & Krantz, 2009), and were examined at 1000X magnification with a Olympus BX<sub>51</sub> differential interference contrast microscope. All drawings were prepared by drawing tube. Body length measurements represent the distance between the base of the gnathosoma and the end of the idiosoma; width was measured at the broadest point of the idiosoma, between legs III–IV. All setae were measured from the setal base to the tip; distances between setae were measured between setal bases. Leg measurements are from the coxa to the base of the claws.

The terminology and setal notations used in the descriptions follow that of Grandjean (1939, 1944), as used in, for example, Walter *et al.* (2009). All measurements are given in micrometers (µm) and the measurements of the holotype are followed by the range of the paratype in brackets.