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Cheylostigmaeus gharakhanii sp. nov. (Acari: Trombidiformes: Stigmaeidae) from Northwest Iran

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Abstract

A new species of *Cheylostigmaeus* Willmann (Acari: Trombidiformes: Stigmaeidae), *Cheylostigmaeus gharakhanii* **sp. nov.**, is described and illustrated based on females and males. It was collected from soil in apple orchards at Marand, East Azerbaijan province, Iran.

Key words: Acari, Raphignathoidea, Stigmaeidae, *Cheylostigmaeus*, Soil, Iran

Introduction

Stigmaeid mites (Acari: Trombidiformes) are predators and feed on a variety of arthropods such as spider mites and scale insects, especially their eggs (Summers 1966). This family is the second most frequent predatory mite family found on plants after the Phytoseiidae (Santos & Laing 1985; Khanjani & Ueckermann 2002; Hernandes & Feres 2005). The Stigmaeidae comprise a large cosmopolitan group of genera, which are found in various ecosystems: soil, litter, plant foliage, vegetation and even occur on sandflies (Martinez-Ortega *et al*. 1983). This family can be defined as follows: dorsal shields absent or dorsum completely covered by 2-4 shields or partly covered by 3 or more shields; 12–14 pairs of dorsal body setae; chelicerae usually free but partially fused in some genera; palp with thumb-claw complex with a seta or clawlike accessory claw at base of tibial claw; and terminal sensillum on palptarsus varies from a simple bidentate to tridentate spine or four eupathidia. Among genera of this family, the genus *Cheylostigmaeus* can be distinguished mainly by the partly fused chelicerae. To date 26 species of *Cheylostigmaeus* have been described worldwide (Fan & Zhang 2004; Koç 2005; Khanjani *et al*. 2010; Dönel & Doğan 2011). Among them two species have been reported from Iran: *Cheylostigmaeus iranensis* Khanjani & Ueckermann, 2002 and *C. ferdowsii* Khanjani *et al*. 2010. In this paper a new species is described and figured. This new species described here is the third Iranian species, collected from soil under apple trees from East Azerbaijan province.

Material 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

