

A new species of the genus *Favognathus* from Iran and re-description of *Eryngiopus affinis* Barilo (Acari: Cryptognathidae, Stigmaeidae)

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Abstract

A new species of the genus *Favognathus*, *F. farshchiani* **sp. nov.**, is described and illustrated, and *Eryngiopus affinis* Barilo, 1987 is recorded for the first time from Iran and re-described. *Favognathus farshchiani* **sp. nov.**, were collected from soil under the trees of berry (*Morus alba*), apricot (*Prunus armeniaca*) and elm (*Ulmus* sp.) in various orchards and fields. *Eryngiopus affinis* were collected from the soil of berry orchards, Isfahan province, Iran.

Key words: Acariformes, Trombidiformes, Prostigmata, soil, female

Introduction

The Raphignathoidea Kramer, 1877 is one of the oldest groups of the Acari and was proposed by Grandjean (1944). This superfamily comprises 11 families, which are found in various ecosystems: foliages, branches, trunks, mosses and lichens, litters, soils, animal nests, stored products and even in house dusts (Fan & Zhang 2005). Mites of the superfamily Raphignathoidea are free-living predators and biological control agents of spider mites, eriophyid mites, and scale insects in agriculture and forestry (Fan & Zhang 2005).

To date, seven families of this superfamily have been reported from Iran, namely: Stigmaeidae, Raphignathidae, Caligonellidae, Camerobiidae, Cryptognathidae, Eupalopsellidae and Barbutiidae (Khanjani & Ueckermann 2002a, b, 2008; Ueckermann & Khanjani 2002; Bagheri & Khanjani 2009; Navaei-Bonab *et al.* 2012). Stigmaeidae is the second most frequent predatory mite family found on plants after the Phytoseiidae (Santos & Laing 1985; Khanjani & Ueckermann 2002a; Fan & Zhang 2005). Currently this family comprises 32 genera including *Eryngiopus*.

The family Cryptognathidae was established by Oudemans (1902) based on *Cryptognathus* which was erected by Kramer (1879) (Doğan & Dönel 2010). Members of this family can be easily recognized by the presence of a protective hood on anterior part of the propodosoma and extremely extendable gnathosomal base (Doğan 2008). These small animals are considered predatory mites (Baker & Wharton 1952; Meyer & Ryke 1960); however, recently they have been considered as microphytophages (Swift 1996; Swift & Goff 2001). Cryptognathidae comprises 53 species in three genera: *Favognathus* Luxton, 1987 (32 species), *Cryptognathus* Kramer, 1879 (19 species) and