

Article

## ***Eustigmaeus nahidae*, a new species of the genus *Eustigmaeus* Berlese (Acari: Stigmaeidae) from northwest Iran**

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### **Abstract**

A new species of *Eustigmaeus*, *E. nahidae* **sp. nov.** is described based on females and males collected from soil in apple orchards in Bonab, East Azerbaijan province, Iran.

**Key words:** Acari, Stigmaeidae, new species, Iran, *Eustigmaeus*

### **Introduction**

The family Stigmaeidae (Trombidiformes: Raphignathoidea) includes potentially important predaceous mite species found throughout the world on plants and in the soil; the biology and application of stigmaeid mites in biological control have been reviewed in several studies (Elbadry, 1969; Nelson *et al.*, 1973; Santos, 1976; Khodayari *et al.*, 2008). Stigmaeidae consists of a large cosmopolitan group of genera which are usually identified by the distinctive configuration of the dorsal shields (Ueckermann & Meyer, 1987), with 30 genera and over 500 species according to a recent estimate (Zhang *et al.* 2011). The genus *Eustigmaeus* Berlese, 1910 is one of the largest group in the family Stigmaeidae and contains more than 100 species worldwide (Fan & Zhang, 2005; Cheng & Fan, 2008; Doğan *et al.* 2011). Up to now ten species of this genus have been reported from Iran, namely: *E. nasrinae* Khanjani & Ueckermann, 2002; *E. segnis* (Koch, 1836); *E. jiangxiensis* Hu, Chen & Huang, 1996; *E. ornatus* Ueckermann & Meyer, 1987; *E. spathatus* Ueckermann & Meyer, 1987; *E. sculptus* Doğan, Ayyildiz & Fan, 2003; *E. azerbaijanensis* Haddad *et al.* 2010; *E. anauniensis* (Canestrini) (see Koç & Ayyildiz, 2000); *E. dogani* Khanjani *et al.* 2011 and *E. setiferus* Bagheri *et al.* 2011 (Khanjani & Ueckermann, 2002; Kamali *et al.* 2001; Kheradmand *et al.* 2007; Haddad *et al.*, 2010; Khanjani *et al.*, 2011; Bagheri *et al.* 2011). In this study we describe and illustrate another species of this genus.

### **Material and methods**

Mites were extracted from soil using a Berlese funnel. Specimens were cleared in Nesbitt's fluid and mounted in Hoyer's medium. The gnathosoma was measured from the base of the chelicerae to the tip of palptibial claw, the length of the idiosoma from the suture between the gnathosoma and idiosoma to the posterior margin of the suranal shield, the width of the idiosoma at the broadest part