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## An annotated checklist of oribatid mites (Acari: Oribatida) of Iran

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### Abstract

Oribatid mites (Acari: Oribatida) are one of the largest and dominating groups of soil inhabitants that play an important role in the formation and fertilization processes of the soils. In the present paper, a list of oribatid mites of Iran (excluding Astigmata) is present based mainly on the collected and identified species and on literature records since 1961. In total, 380 species belonging to 191 genera and 86 families have been recorded and these are listed along with their known geographical distributions and localities in Iran. The following seven species *Sellnickochthonius cricoides* (Weis-Fogh, 1948), *Hypochthoniella minutissima* (Berlese, 1904), *Nothrus silvestris* Nicolet, 1855, *Hemileius (Hemileius) initialis* (Berlese, 1908), *Punctoribates (Punctoribates) punctum* (C. L. Koch, 1839), *Ceratozetes conjunctus* Mihelčič, 1956, *Eupelops tardus* (C. L. Koch, 1835) and *Pelopsis* Hall, 1911 are recorded for the first time from Iran. The closing date for publications included in this list was 15 January 2015.

**Key words:** mites, Oribatida, fauna, checklist, new record, distribution, Iran

### Introduction

This paper is intended to draw attention to the Iranian soil fauna by presenting a preliminary catalogue of one such group, the oribatid mites (Acari: Oribatida). Although Iran is one of the largest countries in the world with an area of 1,648,195 km<sup>2</sup> and diverse climate, its fauna of oribatid mites is relatively poorly known, compared to that of European and some Asian countries. Investigation on the oribatid mite fauna in Iran has been done in various scattered studies, especially during last two decades. Historically, the first oribatid mite, *Liebstadia* sp., was recorded from northern Iran more than half a century ago by Farahbakhsh (1961). Sixteen years later, Sepasgozarian (1977) reported the second Iranian oribatid species, *Siculobata sicula* (Berlese, 1892) from Lorestan and Mazandaran provinces. Niedbała (1984) described two ptyctimous oribatid mites, that have been collected from northern provinces of Iran by Dominiak in 1972 and these two species were the first Iranian described oribatids. Subsequent studies appeared nearly 10 years later and were fragmentary as research articles, abstracts, Ph.D. dissertations and M.Sc. theses: Faraji & Kamali (1993) recorded three species from citrus orchards of Mazandaran province; Ostovan (1993)—three species from stored food products of Kazerun, Fars province; Fathipour (1994)—14 species from fruit gardens around Tabriz, East Azerbaijan; Khanjani (1996)—38 species from soil of plants of the family Fabaceae in Hamadan province; Barimani & Kamali (1998)—six species from conifer trees in Mazandaran province; Taghavi *et al.* (1998)—six species from tea plant in Mazandaran province; Haddad Irani-Nejad (1998)—27 species from cotton fields of Moghan plain in Ardabil province, and Akrami (2001)—32 species from Abarkouh, Yazd province, of which 6 species were described (Bayartogtokh & Akrami 2000*a, b*; Mahunka & Akrami 2001). The first checklist of Iranian Acari with 65 species of oribatid mites was published by Kamali *et al.* (2001). Subsequently, in 2001–2006, Akrami performed an all-embracing survey on the oribatid fauna of Mazandaran province. As the result of these investigations 123 species of Oribatida were found in different habitats, of which 53 species were new records for Iran fauna (Akrami *et al.* 2006; 2008) and in subsequent years, he and his colleagues described 27 species, collected from various areas of Iran (Akrami 2008*a*; 2012; Akrami & Behmanesh 2011; 2012; 2013*a*; Akrami & Coetzee 2007; Akrami & Ebrahimi 2013*a, b*; Akrami & Subías 2007*a, b*; 2008*a, b, c*; 2009; Akrami *et al.* 2009; 2010; 2011; Bayartogtokh & Akrami 2014). Later