

***Cheiroseius manouchehrii* sp. nov. (Acari: Mesostigmata), a new species from Iran**

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Abstract

A new species of blattisociid mite, *Cheiroseius manouchehrii* sp. nov. is described and illustrated based on materials collected from soil mixed with the hairy roots of a willow tree near the pool of a stream in Agareh village, Damghan, Iran.

Key words: Blattisociidae, Platyseiinae, *Episeius*, key, Iran

Introduction

Members of the subfamily Platyseiinae, a taxon previously considered as one of three subfamilies in the family Ascidae of the superfamily Ascoidea by Lindquist & Evans (1965) were treated as one of the two subfamilies in the family Blattisociidae of the superfamily Phytoseioidea by Lindquist *et al.* (2009). Lindquist & Moraza (2010) revised the concept of the Blattisociidae and provided a key to its constituent genera of the subfamilies Platyseiinae and Blattisociinae.

The subfamily Platyseiinae has three genera, *Cheiroseius* Berlese, 1916, *Platyseius* Berlese, 1916 and *Cheiroseiulus* Evans and Baker, 1991 (Lindquist 2003). Mites of the genus *Cheiroseius* Berlese, 1916 are found mainly in humid or extremely humid habitats such as marshes, alder swamps, banks of rivers and streams, arable soils especially in black and clay soils (Karg 1981), decaying plant material in wet meadows, litter between tree roots and moss (Kaluz & Fenda 2005). As predators, they hunt and feed on nematodes and Collembola in moist soils, which also show a liking for humid habitats (Karg 1979; Halliday *et al.* 1998). The generic concepts for *Cheiroseius* were presented by Lindquist & Evans (1965).

There is a need to revise the genus *Cheiroseius* based on a cladistic analysis because of species disparities in this genus (Lindquist 2003). Halliday *et al.* (1998) synonymized subgeneric name *Cheiroseius* (*Posttrematus*) with *Episeius* for the first time. If anyone accepts Karg's subgeneric concepts, *Posttrematus* Karg, 1981 must be treated as a junior synonym of *Episeius*. So there are two subgenera in this genus including *Cheiroseius* Berlese, 1916 and *Episeius* Hull, 1918. Also, the attributes presented for each of these subgenera are not synapomorphic only among species of those subgenera, especially adults of the genus *Platyseius* being characterized by having well developed post-stigmatic projections of the peritreme (Lindquist 2003). We agree with subgeneric concepts of Halliday *et al.* (1998) and Lindquist (2003). This genus should be revised completely and a list of its species as well as a key for all species should be given in the future.

Evans & Baker (1991) described a new genus and species *Cheiroseiulus reniformis*. This species differs more significantly from the two other platyseine genera, *Platyseius* Berlese and