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Third report of Allochaetophoridae Reck, 1959 (Acari: Trombidiformes) based on the description of a new species from Iran

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Abstract

A new mite species *Allochaetophora iranica* sp. nov. (Tetranychoida: Allochaetophoridae), is described and illustrated based on females and deutonymphs collected from *Phragmites australis* (Poaceae) in Iran (Kerman Province). This is the third report of the family Allochaetophoridae for the world and first report of it from Asia.

Key words: Prostigmata, *Allochaetophora*, fauna, *Phragmites*, Iran

Introduction

The Allochaetophoridae is a small family in the superfamily Tetranychoida (Acariformes: Trombidiformes) that resemble other elongate tetranychoids, such as the Linotetraniidae and some Tenuipalpidae. According to Krantz & Walter (2009), the diagnostic characters of this family are: slender body, more than twice as long as wide; prodorsum with three pairs of setae and two pairs of eyes; opisthosoma with 14 pairs of setae; integument striated; palpus five-segmented, palptibia with a claw forming a "thumb-claw" complex; venter with intercoxal setae *1a*, *3a*, *4a*; female genital shield with three pairs of setae; three pairs of pseudanal setae present on anal valves, of which some setae may be bifurcate or dendritic. The male has complex internal genitalia.

The family Allochaetophoridae consists of a single genus *Allochaetophora* McGregor, 1950 with two species, *A. californica* McGregor, 1950 (described from a deutonymph from *Cynodon dactylon* (Poaceae)) from California (McGregor 1950) and *A. africana* Meyer and Ueckermann, 1997 from Africa (described from all stages except the protonymph from undetermined grass and soil) (Meyer & Ueckermann 1997). It seems that grass crowns and underlying rootlets are preferred habitats for this family, as in linotetraniids. Probably the elongated form of allochaetophorids may reflect adaptation to sequestered habitats in the sheaths of graminaceous plants (Krantz & Walter 2009).

In this paper we describe the third new species of the genus *Allochaetophora* from Iran based on females and deutonymphs also collected from grasses.

Material and Methods

Mite infested leaves and sheaths were collected, placed into plastic bags and transferred to the laboratory. Host plant sheaths were cut layer by layer and were washed in a solution of water and commercial detergent. This solution was filtered through a sieve (400 Mesh). Mites retained on the sieve were washed with 70% ethanol into a petri dish. Mites were collected individually under a stereomicroscope, cleared with lactic acid (at 45°C) and mounted in Hoyer's medium. Mites were examined under an Olympus phase-contrast compound microscope. Measurements were done by means of a Dino-Eye® soft imaging system and are given in micrometres (µm). The drawings were made using a drawing tube attached to an Olympus® Research Microscope. The terminology and setal notations used for the description follow that of Lindquist (1985). Depositories are cited using the following abbreviations: