

Abstract

Mesostigmata is one of the large group predator mites with cosmopolitan that have usually free-living. Due to the potential importance of mesostigmatic mites in biological control of soil arthropods, a faunistic survey was carried out during ۲۰۱۵–۲۰۱۶ on mesostigmatic mites (Acari: Mesostigmata) in Sistan region (Sistan and Baluchestan province). The samples soil and litter were collected from crops and orchards in different parts of Sistan region (Zahak, Nimrooz, Hamoon, Zabol and Hirmand) by hoes and auger and then after putting up to plastic bags transferred to the laboratory. All samples contained label information. Mites from samples were extracted by Berlese-Tulgrin funnel for ۲۴–۴۸ hours and in next step specimens were cleared in Nesbitt's fluid. Finally, microscopic slides were prepared using Hoyer's medium and identifications was done using different references and valid literature. In this study, ۱۸ species from ۱۴ genera belonging to nine families were identified. Among identified specimens, ۳ species are new records for this region mite fauna. The ۱۵ species marked by one and two asterisks are new to science and the Sistan fauna, respectively. The family Macrochelidae had the most frequency in all the soil samples of different parts of Sistan region. In this family, one species was identified that this species, *Macrocheles merdarius*, was dominant species and there has been in ۷۰% of locations. The mites species are listed according to their families as follows:

Laelapidae: *Haemolaelaps shealsi* (Costa, ۱۹۶۸) ; *Cosmolaelaps vacua*** (Michael, ۱۸۹۱) ; *Gaeolaelaps aculeifer* (Canestrini, ۱۸۸۳) ; *Cosmolaelaps lutegiensis*** (Shcherbak, ۱۹۷۱) ; *Gaeolaelaps kargi*** (Costa, ۱۹۶۸) ; *Gaeolaelaps iranicus*** (Kavianpour & Nemati, ۲۰۱۳) ; *Laelasppisella canestrinii*** (Berlese, ۱۹۰۳) ; Macrochelidae: *Macrocheles merdarius* (Berlese, ۱۸۸۹) ; Parasitidae: *Parasitus consanguineus*** (Oudemans & Voigts, ۱۹۰۴) ; Phytoseiidae: ; *Phytoseius plumifer*** (Canestrini & Fanzago, ۱۸۷۶) ; *Neoseiulus marginalis*** (Wainstein, ۱۹۶۱) ; *Amblyseius meridionalis*** (Berlese, ۱۹۱۴) ; *Amblyseius* sp. * ; Digamasellidae: *Dendrolaelaps* n. sp. * ; Rhodacaridae: *Rhodacarus* n. sp. * ; Blattisociidae: *Lasioseius mcgregori*** (Chant, ۱۹۶۲) ; Ameroseiidae: *Ameroseius delicatus*** (Berlese, ۱۹۱۸) ; Oplitidae: *Oplitis paradoxa* ** (Canestrini & Berlese, ۱۸۸۴).

Keywords: Soil, litter, predatory mites, Sistan and Baluchestan, faunistic



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