http://zoobank.org/urn:lsid:zoobank.org:pub:E21E6D97-C3B8-4435-9BDD-B4F58A25FEE5

Article

New records of mites of the superfamily Pygmephoroidea (Acari: Heterostigmatina) associated with insects from northeastern Iran and new host records

AMIR LOGHMANI, HAMIDREZA HAJIQANBAR^{*} & ALI ASGHAR TALEBI

Department of Entomology, Faculty of Agriculture, Tarbiat Modares University, 14115-336, Tehran, Iran. E-mails: hajiqanbar@modares.ac.ir, amirloghmani@yahoo.com and talebia@modares.ac.ir *Corresponding author

Abstract

A survey was carried out to study Pygmephoroidea (Acari: Prostigmata: Heterostigmatina) associated with insects in northeastern Iran. To capture insects, overnight samplings were examined in the areas. Nine species of three families of the superfamily were identified, including Neopygmephoridae (2 species), Scutacaridae (6 species) and Microdispidae (1 species). *Kerdabania minuta* Khaustov, 2009 (Neopygmephoridae), *Imparipes* (*Apidacarus*) paulyi Ebermann and Fain, 2002 (Scutacaridae), *Archidispus minor* Karafiat, 1959 (Scutacaridae), *Scutacarus claviger* Paoli, 1911 (Scutacaridae); and *Premicrodispus krczali* Khaustov, 2006 (Microdispidae) are new records for mite fauna of Iran. The subgenus *Imparipes* (*Apidacarus*) is recorded for the first time from Asia. Also, ten new insect host records are reported and the world distribution of the mites is reviewed.

Key words: Acari, Heterostigmatina, Pygmephoroidea, new hosts records, Iran

Introduction

The superfamily Pygmephoroidea, with 1469 species, is classified in the cohort Heterostigmatina and suborder Prostigmata (Zhang *et al.* 2011). It comprises a monophyletic group with three families Neopygmephoridae, Scutacaridae and Microdispidae and the family Pygmephoridae as a sister group with mentioned three families (Khaustov 2004). The superfamily includes primarily free-living fungivorous species. Some have both phoretic and nonphoretic female forms and are generally found in association with insects (Walter *et al.* 2009). The taxonomical and biological information about these mites are poorly studied in most parts of the world. There is a need for more investigations and taxonomical studies on these mites (Hajiqanbar 2011). Pursuant to this objective, this study was performed in northeastern Iran.

Materials and methods

The study was conducted during the period from April to August 2012 in northeastern Iran. The insect specimens were captured by a light trap, netting or directly in their habitats (nests of some ants and bees, and flowers of pasture plants). Mites were collected from their hosts under an Olympus stereomicroscope, cleared in lactophenol, mounted in Hoyer's medium and studied with a phase contrast microscope (model BX51, Olympus). All obtained specimens were adult female. All materials were collected by the first author (A. L.). In most cases mites were identified by us using