



<http://dx.doi.org/10.11646/zootaxa.3955.4.6>

<http://zoobank.org/urn:lsid:zoobank.org:pub:E544637B-924B-4A0A-A1D6-DDA5DEE9B2B4>

Review of the genus *Myrmozercon* Berlese (Acari: Laelapidae), with description of a new species from Iran

OMID JOHARCHI¹, ESMAEIL BABAEIAN² & OWEN D. SEEMAN³

¹Department of Plant Protection, Yazd Branch, Islamic Azad University, Yazd, Iran.

E-mail: Joharchi@iauyazd.ac.ir, j.omid2000@gmail.com

²Department of Plant Protection, Faculty of Agriculture, University of Tehran, Karaj, Iran. E-mail: babaeian@ut.ac.ir

³Queensland Museum, P.O. Box 3300, South Brisbane, Queensland 4101, Australia. E-mail: owen.seeman@qm.qld.gov.au

Abstract

A new species of laelapid mite, *Myrmozercon hunteri* sp. nov. associated with *Myrmica* sp. (Hymenoptera: Formicidae), is described and illustrated. A key to 18 species of *Myrmozercon* is presented. Ten further species, all described prior to 1950, are briefly diagnosed but cannot be included in the key. *Myrmozercon* is shown to include a distinct group, *Myrmozercon sensu stricto*, which all have short, highly hypotrichous legs and a series of other consistent character states. This group probably arises from within *Myrmozercon sensu lato*, which have long legs with little or no hypotrichy, but some species also have character states found in *Myrmozercon s.s.* *Myrmozercon ovatum* Karawajew, 1909 is regarded a junior synonym of *M. brevipes* Berlese, 1902.

Key words: Acari, Laelapidae, *Myrmozercon*, taxonomy, new species, Khoznan, Iran

Introduction

The family Laelapidae Berlese is highly speciose, with an ecological diversity not matched by any other family of Mesostigmata. Its species include obligate and facultative parasites of vertebrates and invertebrates, insect paraphages, insect phorionts, and free-living predators, as well as species that dwell in the nests of vertebrates and arthropods (Faraji & Halliday, 2009; Lindquist *et al.*, 2009). Nests of social insects provide habitats for diverse genera of Laelapidae such as *Holostaspis* Kolenati, *Laelaspis* Berlese, *Gymnolaelaps* Berlese, *Pneumolaelaps* Berlese and occasionally *Gaeolaelaps* Evans & Till and *Cosmolaelaps* Berlese (Lindquist *et al.*, 2009). Others, such as the genus *Myrmozercon* Berlese, have a more intimate association with their hosts, and are almost always collected while they cling onto ants. Nothing is known of their feeding behaviour, or any other aspect of their biology. Currently, *Myrmozercon* comprises 28 described species from Europe, Australia, Africa, Middle East, Transcaucasia, North America and Central Asia (Karawajew, 1909; Vitzthum, 1930; Hunter & Hunter, 1963; Rosario & Hunter, 1988; Walter, 2003; Shaw & Seeman, 2009; Trach & Khaustov, 2011; Joharchi *et al.*, 2011; Ghafarian *et al.*, 2013; Joharchi & Moradi, 2013; Babaeian *et al.*, 2013, 2014; Khalili-Moghadam & Nemati, 2014).

Before the present study, eight species of *Myrmozercon* had been reported from Iran (Joharchi *et al.*, 2011; Joharchi & Moradi, 2013; Ghafarian *et al.*, 2013; Babaeian *et al.*, 2013, 2014). We here describe a further new species and present a key for identification of *Myrmozercon* species.

Material and methods

Laelapidae associated with ants were collected in different regions of Iran over a period of six years (2008–2014). Mites were removed from ants' nests by individual hand picking and by extraction from ant nesting material using Tullgren funnels. Mites were cleared in Nesbitt's solution and mounted in Hoyer's medium (Walter & Krantz,