



Two new species of *Myrmozercon* (Acari: Laelapidae) from Australian ants (Hymenoptera: Formicidae)

MATTHEW D. SHAW & OWEN D. SEEMAN

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

Abstract

Myrmozercon burwelli **sp. nov.** is described from arboreal nests of *Polyrhachis flavibasis* (Formicidae) from rainforests in southeast Queensland, Australia. *Myrmozercon beardae* **sp. nov.** is described from unknown ants from South Australia. New specimens with host species data are recorded for *Myrmozercon iainkayi* Walter, and its protonymph and deutonymph are described. Supplementary notes are provided for the North American *M. rotundiscutum* Rosario & Hunter. The genus diagnosis is modified and its limits discussed. A revised key to Australian *Myrmozercon* is provided. *Parabisternalis* and *Laelaspulus* are synonymised with *Myrmozercon*. *Laelaps flexuosa* Michael is confirmed as a species of *Myrmozercon*.

Keywords: key, leg chaetotaxy, *Laelaspulus*, *Parabisternalis*, nest, arboreal, lignicolous, myrmecophiles

Introduction

The genus *Myrmozercon* Berlese, 1902 is currently known from Europe, North America, the Caribbean, Africa and Australia. *Myrmozercon* currently includes 17 species collected from ants and their nests, except *Myrmozercon robustisetae* Rosario & Hunter, 1988 which is known only from a termite nest. Many included species were originally described as *Myrmonyssus* Berlese, 1903 but this genus has been synonymised with *Myrmozercon* Berlese, 1902 (Rosario & Hunter 1988).

No species of *Myrmozercon* occurs on more than a single host species, implying that the genus has a high diversity - or reflecting a poor sampling effort for myrmecophilous mites. Perhaps another pointer to potentially high diversity is that of the hosts for *Myrmozercon* that have been identified (13 species), three are ant species that host two different species of *Myrmozercon* each. Interestingly, each of these three species pairs shows a ratio of body lengths between 1.27–1.32 (Berlese 1904; Sellnick 1941), conforming to a Hutchinsonian size ratio (Walter & Proctor 1999 p. 128).

The first descriptions of Australian *Myrmozercon* were two species from ground-nesting *Iridomyrmex* Mayr (Banks 1916; Hull 1923). *Myrmozercon aequalis* (Banks 1916) was described from the thorax of *Iridomyrmex gracilis* (Lowne) in Tasmania, and *Myrmozercon scutellatus* (Hull 1923), was described from *Iridomyrmex innocens* Forel in Western Australia. These species were inadequately described and the only known specimens of *M. aequalis* are uncleaned and in poor condition (Walter 2003). However both these species match *Myrmozercon* very well including sharing a densely setose dorsum with the type species. Walter (2003) described the moderately hypertrichous *Myrmozercon iainkayi* from the nest of an unknown species of *Polyrhachis* Smith. Herein a second collection of *M. iainkayi* is detailed and the host is identified as *Polyrhachis australis* Mayr. We also describe *Myrmozercon burwelli* **sp. nov.** from *Polyrhachis flavibasis* Clark, collected recently; and *Myrmozercon beardae* **sp. nov.** from unknown South Australian ants, collected at least 77 years ago.