Systematic & Applied Acarology 17(3): 281–300. ISSN 1362-1971

Article

Morphology of juvenile instars of *Meristacarus sundensis* Hammer, 1979 and *Cryptacarus promecus* Grandjean, 1950 (Acari, Oribatida, Lohmanniidae)

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Abstract

The morphology of the juvenile instars of two species of the oribatid mite family Lohmanniidae, *Meristacaris sundensis* Hammer, 1979 and *Cryptacarus promecus* Grandjean, 1950 is described and illustrated. We collate data on the morphology of lohmanniid juvenile instars whose complete ontogeny is known, and show that genera are readily identifiable from their juvenile features. The main generic distinctions are presented by the body surface, the morphology and number of body setae, and the structure of the rostrum and genital plates.

Key words: oribatid mites, Lohmanniidae, *Meristacaris sundensis*, *Cryptacarus promecus*, morphology, juvenile instars, comparative analysis

Introduction

The oribatid mite genus *Meristacarus* Grandjean, 1934 comprises 14 species distributed in the Pantropical region (Subías 2004, online version 2011). At present, the morphology of the juvenile instars of *Meristacarus* was described for only three species: Grandjean (1934) briefly described the juvenile instars and illustrated the lateral, caudal and anal views of a larva of *Meristacarus porcula* Grandjean, 1934; Pérez-Íñigo (1969) briefly described the juvenile instars and illustrated the dorsal views of the larva and tritonymph, genital plates of the deutonymph and tritonymph of *Meristacarus africanus annobonensis* Pérez-Íñigo, 1969; and Schatz (1994b) described the juvenile instars of *Meristacarus longisetosus* Mahunka, 1978 (figures absent).

The oribatid mite genus *Cryptacarus* Grandjean, 1950 comprises seven species distributed in the Pantropical region and Palaearctic south (Subías 2004, online version 2011). The morphology of juvenile instars of *Cryptacarus* was previously unknown.

The morphology of juvenile instars in the family Lohmanniidae was described (often briefly) for several members of this family, and this previous work is summarized chronologically below.

Grandjean (1933) described and illustrated the anogenital regions of all instars of *Lohmannia* sp., and later he (1950) briefly described and illustrated the lateral side of the larva of *Torpacarus*

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