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Morphology of larval stages of *Arrenurus cuspidator* (O. F. Müller) and *A. maculator* (O. F. Müller) (Acari: Hydrachnidia)

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Abstract

The morphology of the larval stage of *A. cuspidator* is re-described and *A. maculator* is described. Particular attention is paid to character differences between the two species. The present description of larval *A. cuspidator* is more detailed than the previously published description. Larvae of both species are very similar and differ only in four well defined characters: presence of a hair brush on the base of the C1 seta in *A. maculator*; the distances Mp2-Mp2, Mp1-Lp2, C1-C2, C1-CpI medial margin, and C4-CpIII medial margin; the length of the PV8 seta (longer in *A. maculator*); and the length of the antero-lateral indents in the dorsal plate (longer in *A. cuspidator*). The species are separated from one another mainly by the shape of dorsal plate with the relatively deep antero-lateral indents into which they cut at a straight angle.

Key words: Acari, Hydrachnidia, water mites, *Arrenurus cuspidator*, *A. maculator*, larvae, morphology

Introduction

Water mites (Acari: Parasitengona: Hydrachnidia) are a fairly well known group of aquatic invertebrates. This, however, is based mainly on adults. Knowledge of the group can be widened, both in taxonomical, biological, and ecological terms, by intensifying research on larval stages. Such research is particularly important for resolving the ecological breadth of various species, their distribution and dispersal, and the control of population size. In water mites there are three active stages: larva, deutonymph and adult. Two of these (deutonymph and adult) are predators, and the larva in most of the species is parasitic (Gledhill 1985). In larvae of *Arrenurus* (Arrenuridae), the parasitic phase does not occur in close proximity to water, and the period of initial attachment by the larva to its host is a phoretic stage prior to parasitization (Böttger 1976).

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