

Studies on water mites of the family Hygrobatidae (Acari, Hydrachnidia) from Iran, I. The water mite genus *Atractides* Koch, with the description of five new species

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Abstract

This survey of the distribution of the water mite species (Acari: Hydrachnidia, Hygrobatidae) of the genus *Atractides* Koch in Iran is based on all published data so far and numerous new records. Five new species are described, viz. *Atractides markaziensis* Pesic, *A. mossahebi* Pesic, *A. mirkopesici* Pesic, *A. gerecke* Pesic, and *A. nikooae* Pesic; a first description is given for the male of *Atractides* cf. *lunipes* Lundblad, 1956; a redescription are given for *Atractides baderi* Schwoerbel & Sepasgozarian, 1976, *Atractides nahavandii* Schwoerbel & Sepasgozarian, 1976, and *Atractides fluviatilis* (Szalay, 1929); first records from Iran are given for *Atractides acutirostris* (Motas & C. Angelier, 1927), *A. robustus* (Sokolow, 1940) and *A. inflatus* (Walter, 1925).

Key words: Acari, water mites, taxonomy, new species, Iran

Introduction

Water mites of the genus *Atractides* Koch have been found in all biogeographic regions except for Australia and Antarctica (Gerecke 2003). The aim of this paper is to contribute to the diversity, distribution and ecology of hygrobatid water mites in south-eastern Palae-arctic region

So far, only five species of the genus *Atractides* Koch are actually known from Iran: *Atractides nahavandii* Schwoerbel & Sepasgozarian, 1976, *Atractides baderi* Schwoerbel & Sepasgozarian, 1976, *Atractides iranicus* Pesic & Asadi, 2002, *Atractides* cf. *arcuatus* Thor, 1914 and *Atractides nodipalpis* Thor, 1899 (Asadi *et al.* 2003a).

During a survey of the freshwater fauna of Iran, several species of the water mite genus *Atractides* Koch were collected, including a five new species.

Material and Methods

Water mites were collected by hand netting, sorted on the spot from the living material, and conserved in Koenike's fluid and dissected as described elsewhere (e.g. Gerecke 1991). Slide mounted specimens and material preserved in fluid is lodged in the collection of the authors. Holotypes and paratypes are deposited in the Museum of the Natural History of Podgorica (Crna Gora), further paratypes will be deposited in the zoological museum of the College of Agricultural of Tehran University in Karaj (Iran). In the section "New records" collecting site abbreviations derive from the geographical database Pesic.

All measurements are given in μm . The composition of the material is given as: (males/females/deutonymphs), and the following abbreviations are used: Ac-1 = first acetabulum, asl = altitude see level, Vgl = ventro-glandularia, I-L-6 = Leg 1, sixth segment, P-1 = palp, first segment, P-4 1:1:2 = ventral margin of P-4 divided by hair insertions in sections 1:1:2, Cx-1 = first coxae, S-1 = proximal seta at I-L-5, S-2 = distal seta at I-L-5,