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

VLADIMIR PESIC1, ALIREZA SABOORI2, MAHDIEH ASADI2 & REZA VAFAEI3

1 Department of Biology, Faculty of Sciences, University of Crna Gora, Cetinjski put b.b., 81000 Podgorica, Montenegro, Serbia and Montenegro (pesicv@cg.yu)
2 Department of Plant Protection, College of Agriculture, University of Tehran, Karaj, Iran (saboori@ut.ac.ir, asadi_mahd@yahoo.com)
3 Department of Entomology, College of Agriculture, Islamic Azad University, Arak, Iran (orius131@yahoo.com)

Table of Contents

Abstract ................................................................. 2
Introduction .............................................................. 2
Material and Methods .................................................. 2
Results ................................................................. 3
Family Hygrobatidae Koch ............................................... 3
Genus Atractides Koch .................................................. 3
Subgenus Atractides Koch ............................................... 3
Atractides markaziensis Pesic sp. nov. ................................ 3
Atractides mossahebii Pesic sp. nov. ............................... 7
Atractides mirkopesici Pesic sp. nov. .............................. 12
Atractides inflatus (Walter, 1925) ................................ 15
Atractides gereckeii Pesic sp. nov. ................................. 17
Atractides nikooae Pesic sp. nov. ................................. 22
Atractides iranicus Pesic & Asadi, 2002 .......................... 24
Atractides cf. lunipes Lundblad, 1956 .............................. 24
Atractides flaviatilis (Szalay, 1929) ............................... 28
Atractides robustus (Sokolow, 1940) .............................. 32
Atractides nodipalpis Thor, 1899 .................................. 32
Atractides baderi Schwoerbel & Sepasgozarian, 1976 ........... 32
Atractides nahavandii Schwoerbel & Sepasgozarian, 1976 ....... 35
Subgenus Tympanomegapus Thor .................................. 37
Atractides acutirostris (Motas & C.Angelier, 1927) .............. 37
Acknowledgements .................................................... 39
References ............................................................. 39
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. mossahebii* Pesic, *A. mirkopesici* Pesic, *A. gereckeii* 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 fluvati-lis* (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 Palaeartic 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,