



## A revised survey of water mites (Acari: Hydrachnidia) from Iran: new synonyms and descriptions of three new species

MAHDIEH ASADI<sup>1</sup>, VLADIMIR PEŠIĆ<sup>2,3</sup> & ISA ETEMADI<sup>1</sup>

<sup>1</sup>Department of Plant Protection, College of Agriculture, Shahid Bahonar University of Kerman, Kerman, Iran.

E-mail: asadi.mahd@yahoo.com, eatemadi2@yahoo.com

<sup>2</sup>Department of Biology, University of Montenegro, Cetinjski put b.b., 81000 Podgorica, Serbia and Montenegro.

E-mail: pesicv@t-com.me

<sup>3</sup>Corresponding author

### Abstract

The paper deals with the changes which are necessary in the taxonomy of water mites (Acari, Hydrachnidia) from Iran after revision of type material of certain water mites (Hydrachnidia) deposited in the collection of the Naturhistorisches Museum Basel and recent field work. The following synonyms are established: Family Sperchontidae: *Sperchon amuzgari* Bader & Sepasgozarian, 1979 = *S. hispidus* Koenike, 1895, *S. bispinosus* Bader & Sepasgosarian, 1982 = *S. papillosus* Thor, 1901, *S. beneckeii* Bader & Sepasgosarian, 1982 = *S. algeriensis* Lundblad, 1942; Family Torrenticolidae: *Torrenticola baueri* Bader & Sepasgozarian, 1987 = *T. barsica* (Szalay, 1933); *Monatractides persicus* Pešić & Saboori, 2004 = *M. stadleri* (Walter, 1924); *M. sepasi* Bader, 1988 = *M. lusitanicus* (Lundblad, 1941). Furthermore, three species *Atractides (Polymegapus) persicus* Pešić & Asadi, *Axonopsis (Hexaxonopsis) iranica* Pešić & Asadi and *A. (Hexaxonopsis) manoojani* Pešić & Asadi are described as new to science; the first description of the deutonymph is given for *Limnesia kochi* Smit & Pešić, 2010, a species previously known only from Oman.

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

### Introduction

From Iran 156 species and subspecies of water mite are known at the present time (Pešić & Saboori 2007, Pešić & Vafaei 2009). This is a relatively low number compared to other neighbouring or zoogeographically related regions —e.g., from the Balkan Peninsula 382 species and subspecies are known (Pešić *et al.* 2010), 236 species and subspecies from Turkey (Erman *et al.* in press) and from India 275 species and subspecies (Pešić *et al.* in press). Recently, we had the opportunity to revise type material of some water mite species deposited in the collection of the Naturhistorisches Museum Basel (NHMB) and to examine aspects of intraspecific variability with material collected during recent field work. This paper collects and explains all the taxonomic changes which are necessary from our observations. Additional morphological and faunistic information is given for selected species, and three species from Kerman Province (SE Iran) are described as new to science.

### Material and methods

During field work, water mites were collected by hand netting, sorted on the spot from the other living material, conserved in Koenike's fluid and dissected as described elsewhere (e.g. Gerecke *et al.* 2007). The holotypes of the new species will be deposited in the Naturhistorisches Museum Basel (NHMB), the paratypes in the Museum of Natural History of Podgorica (Montenegro) and the zoological collection of the Department of Plant Protection, University of Kerman.