



Contribution to the study of arrenuroid water mites (Acari: Hydrachnidia) from Turkey

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Abstract

In this paper, one new water mite species of the genus *Arrenurus*, i.e. *Arrenurus* (s.str.) *ovatipetiolatus* Esen & Erman sp. nov. and some new records for the Turkish fauna are given. The first description of the female of *Arrenurus* (s.str.) *antalyensis* Gülle, Boyacı & Gülle, 2011 is given. *Arrenurus* (s.str.) *kermanensis* Pešić, Smit & Asadi, 2011, which is only known from type locality in Iran, and reported here, is new record for the Turkish fauna, is redescribed. *Arrenurus* (s.str.) *kurui* Erman, 1993 is considered a junior synonym of *Arrenurus* (s.str.) *vavrai* Thon, 1899. *Krendowskia* (s.str.) *levantensis* Smit, 1997, a species only known from Israel and Iran, is reported first time from Turkey.

Key words: water mite, new species, *Arrenurus*, *Krendowskia*, Turkey

Introduction

Arrenurus is the largest genus of water mite with over 950 species known worldwide (Smit 2012; Zhang *et al.* 2011). From Turkey 50 species from four subgenera are known, and the genus is one of the better investigated with the highest percentage of the total number (represents 18.8% of the 266 species) (Erman *et al.* 2010; Gülle *et al.* 2011). Endemism of the genus *Arrenurus* is high in Turkey with eight species being endemic. Two rare species, *Arrenurus turgidus* Koenike, 1911 and *A. vavrai* Thon, 1899, are recorded for the first time since their original description (Erman 1993; Erman & Özkan 1990, 1997; Smit & Erman 2003; Boyacı & Özkan 2004; Gülle *et al.* 2011).

The genus *Krendowskia* is one of the less species-rich in the Palaearctic with only two species in Europe and only one species known from Turkey (Bursalı & Özkan 2002).

In this paper result of the faunal survey in Kahramanmaraş Province (Eastern Mediterranean region of Turkey) is presented, and one new species of water mite is described. In addition, records of some rare arrenuroid water mite species are presented.

Material and methods

During field work, water mites were collected by hand netting, sorted on the spot from the living material, conserved in Koenike's fluid and dissected as described elsewhere (e.g. Gerecke *et al.* 2007). The holotypes and some paratypes of the new species are deposited in the research collection of the Biology Department, Fırat University, Elazığ, Turkey. The specimens examined in this study were collected by the authors.

The composition of the material is given as: males/females/deutonymphs. All measurements are given in micrometers. The following abbreviations are used: a.s.l. = above sea level; Ac-1-3 = acetabulum 1–3; Cx-4 = fourth coxae; dL = dorsal length; I-L-6 = first leg, sixth segment (tarsus); L = length; P-1 = palp, first segment and W = width.