

The first Asian record of the water mite genus *Thoracophoracarus* K. Viets (Hydrachnidia: Arrenuridae)

H. SMIT¹ & V. PEŠIĆ²

¹ Naturalis Biodiversity Center, P.O. Box 9517, 2300 RA Leiden, The Netherlands. E-mail harry.smit@naturalis.nl

² Department of Biology, University of Montenegro, Cetinjski put b.b., 81000 Podgorica, Montenegro.
E-mail vladopesic@gmail.com

Abstract

A new species of the genus *Thoracophoracarus* K. Viets is described from South Korea. This genus was previously known only from the Afrotropical and Neotropical regions, and the record from South Korea means a considerable range extension of the genus.

Key words: Acari, water mites, new species, South Korea

Introduction

The genus *Thoracophoracarus* is known from the Afrotropical and Neotropical regions. Two species are known from Chile, but the genus is most species-rich in the Afrotropical region, with ten species known (Gerecke 2009, Smit 2012). Currently three subgenera are introduced, *Thoracophoracarus* s.s. for species from the Afrotropical region (but one species from South Africa without subgeneric assignment), *Thoracophorurus* K. Viets, 1941 with one species from Cameroon and *Xenthoracaphorus* Cook for the two species from Chile. Species of the subgenus *Thoracophoracarus* show a wide variation in characters, e.g. males with and without a petiole, males with a long cauda or without a cauda or males with or without large dorsal humps.

Several authors coined the question whether the genus has derived one or more times from an *Arrenurus*-like ancestor (Cook 1988, Gerecke 2009). K.O. Viets (1962) noted a similarity with the subgenera of the genus *Arrenurus*. In this paper a new species from Korea is described, with a strong similarity with members of the subgenus *Micruracarus* K. Viets of the genus *Arrenurus* Dugès. This points to the direction of a derivation of the genus from subgenera of *Arrenurus*. However, the subgeneric division of *Arrenurus* is highly artificial (Cook 1974), and has very likely no phylogenetic base. Gerecke (2009) discerned several related groups of species, one group with a common ancestor in Central Africa and a group of two species from South Africa. The species from Madagascar differ strongly from the continental African species in having rounded genital plates not reaching the lateral idiosoma margin, and a strong sexual dimorphism in the position of the gonopore. Gerecke postulated that two phylogenetic lines can be discerned, one monophyletic clade of Central African species, possibly also including the South Africa species and one clade from Madagascar. The two species from South America represent one or two more clades.

The new species described in this paper from Korea is the first representative for Asia. It extends the distribution of the genus considerably.