



## New records of the water mite family Arrenuridae from the Afrotropical region, with the description of 11 new species and two new subspecies (Acari: Hydrachnidia)

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### Abstract

Ten new species and two new subspecies of the water mite genus *Arrenurus* are described from the Afrotropical region, i.e. *Arrenurus abyssinicus* n. sp., *A. altomontanus* n. sp., *A. baleensis* n. sp., *A. bechuanicus* n. sp., *A. botswanicus* n. sp., *A. coronopetiolatus* n. sp., *A. flavus* n. sp., *A. monocavus* n. sp., *A. okavango* n. sp. and *A. serratipetiolatus* n. sp., *A. chutteri longipes* n. subsp., *A. concavus longifissus* n. subsp. One new species of the genus *Thoracophoracarus* is described, *T. fluviatilis* n. sp. The following taxa are proposed to the rank of a full species: *A. chutteri* K.O. Viets, *A. damasi* Lundblad and *A. grandis* Walter & Bader. *Arrenurus odonatophilus* Mückberg is transferred to the subgenus *Brevicaudaturus* Smit, while *A. discretus* Cook is synonymized with the latter species. *Arrenurus vanopus* Cook is synonymized with *A. capensis* Thor, and the female of *A. petri* Cook must be assigned to *A. capensis*. The presumed female of *A. petri* is described therefore again. The male of *A. latifoliatius* K. Viets is redescribed and the female of this species is described for the first time.

**Key words:** New species, Afrotropical region, Hydrachnidia, *Arrenurus*, *Thoracophoracarus*

### Introduction

Within the water mite family Arrenuridae, the water mite genus *Arrenurus* is the largest water mite genus, with some 950 species known to date (K.O. Viets, 1987; [www.watermite.org](http://www.watermite.org) viewed on August 1, 2011). The genus occurs on all continents except Antarctica. From the Afrotropical region (Africa south of the Sahara) 97 *Arrenurus* species are known (K. Viets 1953; K.O. Viets 1970, 1972a, 1973a, b, 1980, 1981; K.O. Viets & Böttger 1974; Green et al 1974; Bader 1976; Cook 1979; Tuzovskij 2007). The taxonomy of the genus *Arrenurus* from the Afrotropical region is hampered by past practice of describing new species based on females only, and occasionally even on deutonymphs only. Especially within the subgenus *Micruracarus*, females are difficult to separate. Descriptions of new *Arrenurus* species should be based on males.

To date, ten subgenera are known worldwide (their distribution in brackets), i.e. *Arrenurus* (worldwide), *Truncaturus* Thor, 1901 (worldwide), *Dadayella* Koenike, 1907 (Neotropical), *Megaluracarus* K. Viets, 1911 (worldwide), *Micruracarus* K. Viets, 1911 (worldwide), *Rhinophoracarus* K. Viets, 1916 (Oriental and Afrotropical), *Arrhenuroopsis* K. Viets, 1954 (Neotropical), *Arrhenuropsides* K. Viets, 1954 (Neotropical), *Brevicaudaturus* Smit, 1997 (Oriental, Australasian, Neotropical) and *Dividuracarus* Smit, 1997 (Australia). The subgenera are based on morphological criteria, and tend to grade into each other, especially *Megaluracarus*, *Micruracarus* and *Truncaturus*. *Dadayella* is close to *Truncaturus*, but Cramer & Cook (1992) retained the subgenus. With such a large genus a subdivision, even an artificial one, is the most convenient.

The genus *Thoracophoracarus* K. Viets is much less species-rich, and only 11 species are known from the Afrotropical and Neotropical region (Gerecke 2009).

In the present paper new records are given from Botswana, Cameroon, Comoros, Ethiopia, Gambia, Ghana, Namibia and South Africa.