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## Two new species of *Armascirus* (Acari: Prostigmata: Cunaxidae) from Slovakia

STANISLAV KALÚZ<sup>1</sup> & MICHAL VRABEC

*Institute of Zoology, Slovak Academy of Sciences, Dúbravská cesta 9, SK-845 06, Bratislava, Slovakia.*

*E-mail: stanislav.kaluz@savba.sk; michal.vrabec@savba.sk*

<sup>1</sup>*Corresponding author. E-mail: stanislav.kaluz@savba.sk*

### Abstract

Two new mite species from Central Europe, viz. *Armascirus fendai* **sp. nov.** and *Armascirus masani* **sp. nov.** (Acari: Prostigmata, Cunaxidae) are described and figured. The keys to the known species (females and males) of the genus *Armascirus* are given.

**Key words:** Acari, *Armascirus*, Cunaxinae, key, taxonomy

### Introduction

Cunaxidae are a family of small predatory mites. The genus *Armascirus* was erected by Den Heyer (1978), who also gave a new classification system and examined the systematics of the family Cunaxidae (Den Heyer 1980, 1981). Later, the monograph of Smiley (1992) presented more detailed knowledge, including a new classification and more new taxa. Since then new cunaxid species have been described from Asia (Muhammad & Chaudhri 1991; Bashir & Afzal 2005; Bashir et al. 2008; Corpuz-Raros 1995, 2008; Corpuz-Raros & Gruezo 2007) and Europe (Kalúz 2009). Most significantly for *Armascirus*, several new species of this genus were described from the Neotropical region (Den Heyer & Castro 2008a, 2008b, 2012) and several species previously placed in other genera (Chaudhri 1977, 1980; Michocka 1982) were moved into *Armascirus* (Den Heyer & Castro 2008b). Recently, Skvarla & Dowling (2011) brought together the knowledge on this genus and, with along with a new species description, presented a key to adults of *Armascirus* of the world. *Armascirus* now comprises 36 species, plus an additional two new species described in this manuscript.

### Material and methods

The specimens studied were collected from soil samples (soil with rhizosphaera of grass) in various areas of Slovakia, isolated in Tullgren photoelectors and mounted in Swann's medium. The drawings were produced with the light microscopy and then enhanced with computer software. All measurements (stated in micrometers— $\mu\text{m}$ ) were done by standardized microscopy ocular micrometer. Measurements are presented as the measurement of the holotype followed by the range (or single measurement for *A. masani* **sp. nov.**) of paratype dimensions in parentheses. Body length was measured from the anterior margin of the pronotal dorsal shield to the caudal margin of the opisthosoma and the width just behind the posterior margin of pronotal shield. The leg segments were measured as follows: coxa—in the axis vertical to connection line of coxa and trochanter; in other leg segments the length of their dorsal side. The dorsal setal notation follows the more generally accepted nomenclature of Kethley (1990), used by Sionti & Papadoulis (2003a,b), Den Heyer (2006) and the later changes suggested for the Bdelloidea by Den Heyer & Castro (2008a). The scales in all figures represent 100  $\mu\text{m}$ .

Abbreviations: Bf—basifemur, Tf—telofemur, Ge—genu, Ti—tibia, Ta—tarsus, Tita—palp tibiotarsus, ap—apophysis, spls—spine-like seta, fam—famulus; asl—attenuate solenidion, bsl—blunt-ended solenidion, tsl—terminal solenidion, sts—simple tactile seta; mst—microseta; T—smooth trichobothrium.

## Key to the males of *Armscirus*

- 1(2) Venter with 5 or less pairs of setae except for genital, anal and adanal setae. . . . . 2  
- Venter with 6 pairs of setae except for genital, anal and adanal setae. Setal formula of legs I–IV: coxae 3-2-3-3, basifemora 5-5-4-2 . . . . . *A. taurus* (Kramer)
- 2(1) Setal formula of legs I–IV: basifemora 5-5-4-1 and tarsi 20-22-14-15 sts. . . . . *A. ebruius* (Chaudhri)  
- Setal formula of basifemora and tarsi I–IV otherwise . . . . . 3
- 3(2) Coxal setal formula I–IV 3-1-3-3 sts. . . . . 4  
- Setal formulae I–IV: coxae 3-2-3-3, tarsi I–IV 16-18-18-17(16) sts; papillae on circular region anterior to setae *sci* present . . . . . *A. huyssteeni* Den Heyer
- 4(3) Setal formula of legs I–IV: basifemora 5-4-3-0; tarsi 16-18-18-17(16) sts; papillae present on circular region anterior to setae *sci*. . . . . *A. limpopoensis* Den Heyer  
- Setal formula of basifemora I–IV 5-5-3-0; papillae on circular region anterior to setae *sci* absent. . . . . 5
- 5(4) Genu I—[2 asl, 1 sts], 2 asl, 4 sts; setal formula of tarsi I–IV 16-18-18-17 sts. . . . . *A. lebowensis* Den Heyer  
- Genu I—2 asl, mst, 5 sts; setal formula of tarsi I–IV 16-13-12-10 sts. . . . . *A. masani* sp. nov.

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