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The genera *Nothacrobeles* Allen & Noffsinger, 1971 and *Zeldia* Thorne, 1937 (Nematoda: Rhabditida: Cephalobidae) from southern Iran, with description of *N. abolafiai* sp. n.

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Abstract

A new species of the genus *Nothacrobeles* Allen & Noffsinger, 1971 is described from a natural area in Kerman Province, Iran. *Nothacrobeles abolafiai* **sp. n.** is characterized by its body length (518–655 µm in females), "single" cuticle, lateral field with three incisures, labial probolae 8.5–9.4 µm long, bifurcated and without tines, bearing a minor curvature at the tip, pharyngeal corpus 3.3–4.1 times isthmus length, R_{ex}= 25–32, spermatheca 22–30 µm long or 0.8–1.2 times the corresponding body diameter, postuterine sac 15–18 µm long or 0.5–0.7 times the corresponding body diameter, female tail conical with rounded terminus (31–43 µm, *c* = 11.9–18.1, *c*' = 1.7–2.4), and phasmid at 38–43% of tail length. In addition, two species of the genus *Zeldia* Thorne, 1937: *Z. punctata* (Thorne, 1925) Thorne, 1937 and *Z. spannata* Waceke, Bumbarger, Mundo-Ocampo, Subbotin & Baldwin, 2005, were recovered. The latter is recorded for the first time from Iran. Description, measurements, illustrations and LM pictures are provided for these three species. Furthermore, comparative morphometrics for the species of *Nothacrobeles* are given. Molecular analysis based on 28S rDNA (D2-D3 expansion) places this new species of *Nothacrobeles* in a different clade to other *Nothacrobeles* species. The results suggest that the genus *Nothacrobeles* may be a paraphyletic taxon.

Key words: description, Iran, new species, *Nothacrobeles*, taxonomy, *Zeldia*, 28S rDNA

Introduction

Nothacrobeles was established by Allen and Noffsinger in 1971. This genus is characterized by having lips more or less rectangular with dentate margin and labial probolae bordered by a membranous projection at the base. De Ley *et al.* (1999a) described three new species, namely *N. nanocorpus*, *N. triniglarus* and *N. spatulatus* from California (USA). Later, Abolafia and Peña-Santiago (2003) described *N. lanceolatus* from Spain and provided a key to the species of the genus *Nothacrobeles*. More recently, Boström and Holovachov (2011) found *N. sohlenii* from Tunisia. *Nothacrobeles* comprises 16 nominal species (see Abolafia & Peña-Santiago, 2003). *N. prominens* (Andrássy, 1964) Andrássy, 1984 has previously been reported from Iran (Shokoohi *et al.* 2008).

The present paper, part of a series on nematodes belong to the order Rhabditida from the province of Kerman, Iran deals with one new species of the genus *Nothacrobeles* and two known species of the genus *Zeldia* collected in natural areas. Furthermore, comparative morphometrics for the species and phylogenetic position of the *Nothacrobeles abolafiai* **sp. n.** is given.

Material and methods

Nematode materials: Nematodes were extracted from soil samples by Baermann's (1917) funnel technique. They

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