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Description of *Acrolobus longigubernaculum* sp. n. (Nematoda, Rhabditida, Cephalobidae) from Iran, the second species of the genus

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Abstract

A new species of the genus *Acrolobus* was recovered during a survey of soil nematodes. *Acrolobus longigubernaculum* **sp. n.**, collected from the rhizosphere of weeds in northeastern Iran, is described and illustrated. It is characterized by a body length of 0.72–0.98 mm in females and 0.73–0.84 mm in males, annulated cuticle, lateral fields with three longitudinal incisures, lip region slightly offset from the neck and 8–11 µm wide, lips leaf-like, stoma 12–16 µm long, pharyngeal corpus 2.7–3.2 times isthmus length, vulva located slightly posterior to middle of body (V = 61–65), spermatheca 26–46 µm long, postuterine sac 27–49 µm long or 0.9–1.3 times the corresponding body diameter, female tail conical with a fine, short mucro (47–58 µm, *c* = 13.9–18.5, *c'* = 2.4–3.2), male tail conical bearing a fine mucro (47–50 µm, *c* = 14.8–17.5; *c'* = 2–2.3), spicules 26–30 µm long and ventrally curved, and gubernaculum 12–16 µm long (50% of spicule length). The new taxon is the second species of the genus *Acrolobus* and is compared to the type species, *A. emarginatus*.

Key words: *Acrolobus*, new taxon, morphology, taxonomy, Iran

Introduction

The genus *Acrolobus* Boström, 1986 is a member of the family Cephalobidae Filipjev, 1934. This genus is rare and, until now, monotypic. The species was first described as *Cephalobus emarginatus* by de Man in 1880, and illustrated later in 1884, but its systematic position has been subsequently modified, having been included in the genera *Acrobeloides* Cobb, 1924 by Thorne (1937) and *Panagrobelus* Thorne, 1939 by Andrássy (1984). Finally, Boström (1986), after studying the lip region under SEM, proposed a separate genus for this species. This taxon is characterized by the presence of six large, leaf-like lips, and absence of labial probolae. During a survey of soil nematodes in northeastern Iran, several specimens of *Acrolobus* were found. Study of these specimens showed that they represent a new species, illustrated and described here.

Material and methods

Nematodes were extracted from soil samples by Baermann's (1917) funnel technique. They were fixed with hot 4% formaldehyde solution and processed to anhydrous glycerine by the method of De Grisse (1969). Measurements were taken directly using an ocular micrometer and/or a curvimeter upon drawing the corresponding organ or structure. Drawings were made using a drawing tube attached to the microscope Nikon model E50i. LM pictures were made with a Nikon Eclipse 80i microscope equipped with a Nikon Digital Sight DS–5M camera. The terminology used to describe the morphology of the stoma and spicules follows the proposals by De Ley *et al.* (1995) and Abolafia and Peña-Santiago (2006), respectively.

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