



Description of *Distolabrellus magnivulvatus* sp. n. (Nematoda, Rhabditida, Mesorhabditidae) from Iberian peninsula, the second species of a rare genus

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Abstract

Distolabrellus magnivulvatus sp. n., collected from green-house soil in central Iberian peninsula, is described and illustrated. It is characterized by having 0.89–1.07 mm long body in females and 0.65–0.99 mm in males, cuticle tessellated, lateral fields with three longitudinal incisures, lip region almost continuous and 10–13 µm wide, lips dimorphic (alternately extremely reduced and ovoid), stoma 22–30 µm long or 2.0–2.8 times lip region diameter, pharyngeal collar shorter than half of total stoma length, distance to pharyngo-intestinal junction 148–190 µm, $V = 82–86$, vulva a transverse slit located in a vulval cone and with its anterior lip bearing a flap-like structure, body cuticle surrounding the vulva especially differentiated, female tail conical with acute tip (68–90 µm, $c = 10.9–14.6$, $c' = 2.1–4.5$), male tail conical (23–32 µm, $c = 24.8–34.0$; $c' = 1.0–1.4$), bursa peloderan and open anteriorly, genital papillae ten pairs (2+1/4+3), spicules 54–64 µm long and fused two-thirds, and gubernaculum 32–41 µm long. The new taxon is the second species of the genus *Distolabrellus* and is compared to type species *D. veechi*.

Key words: Description, Mesorhabditidae, morphology, rhabditids, Iberian peninsula, new species, SEM, taxonomy

Introduction

The genus *Distolabrellus* Anderson, 1983, a member of the family Mesorhabditidae Andrassy, 1976, is a rare rhabditid taxon characterized by the peculiar morphology of its lip region with dimorphic lips: three of them have a comparatively long projection or flap partly covering or hanging over oral aperture, and they alternate with other three lips showing a shorter projection. The genus includes only one valid species, *Distolabrellus veechi* Anderson, 1983, originally described in association with Bermuda grass from Tucson, Arizona, USA, but later recorded from Argentina (Doucet and Doucet, 1992), Florida, USA (Carta *et al.*, 2003) and China (Guo *et al.*, 2008). Very recently, Tahseen *et al.* (2009) reported it from Germany, India, Korea, Nepal and USA. Tabassum *et al.* (2005) described a second species, *D. pakistanensis*, but a very detailed study of *D. veechi* did not find any significant difference between the species and regarded them as identical, *D. pakistanensis* becoming a subjective junior synonym of *D. veechi* (Tahseen *et al.* 2009).

During a survey of nematodes associated with greenhouse cultures in the central Iberian peninsula, several specimens of *Distolabrellus* were found. The specimens have been identified as a new species that is described and illustrated hereunder.

Material and methods

Nematodes were extracted from soil samples using the modified Baermann (1917) and Flegg (1967) techniques, relaxed and killed by heat, fixed in 4% formaldehyde, and processed to anhydrous glycerol (Siddiqi, 1964). Measurements were taken with an ocular micrometer, and line illustrations were made using a drawing tube attached to a Leica microscope. LM pictures were made with a Nikon Eclipse 80i microscope equipped with a Nikon Digital Sight DS-5M camera. For SEM studies, fixed specimens were hydrated in distilled water, dehydrated in a graded