



***Ablechroiulus spelaeus* sp. n. and *A. dudichi* Andrásy, 1970 from Andalucía Oriental, Spain, with a discussion of the taxonomy of the genus *Ablechroiulus* Andrásy, 1966 (Nematoda, Rhabditida, Rhabditidae)**

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Abstract

One new and one known (but uncommon) species of the genus *Ablechroiulus* are described and illustrated from natural areas in the Iberian Peninsula. *Ablechroiulus spelaeus* **sp. n.** is characterized by having body length 0.81–1.48 mm in females and 0.74–1.20 mm in males, lip region nearly continuous and 9–13 µm wide, stoma 23–29 µm long or 1.8–2.7 times the lip region width, neck 166–265 µm long, metacarpus well differentiated, oviduct with a small sac, $V = 55–59$, female tail (51–60 µm, $c = 14–25$, $c' = 1.9–2.7$) with two marked sections, male tail (52, 58 µm, $c = 14.3$, 20.7, $c' = 2.0$) with filiform posterior part, bursa leptoderan and with nine pairs of papillae (1+2/1+2+1+2), spicules 40, 44 µm long having a terminal protuberance, and gubernaculum 20, 24 µm long. Furthermore, one female of *A. dudichi* Andrásy, 1970 is described from the north of the Iberian Peninsula. Descriptions, measurements and illustrations are presented for the two species, and SEM pictures are provided for *A. spelaeus* **sp. n.** The identity of *Ablechroiulus* is discussed, including a historical outline, its morphological characterization, and a discussion on the status of several of its species. An emended diagnosis of the genus is provided as well as a list of its species and a key to their identification.

Key words: *Ablechroiulus*, description, key, morphology, new species, rhabditids, Iberian Peninsula, SEM, taxonomy

Introduction

The genus *Ablechroiulus* Andrásy, 1966 is an uncommon but globally distributed (Europe, Africa, Asia, and North America) nematode taxon. Three of its species were collected and described from natural areas in the Iberian Peninsula (Abolafia & Peña-Santiago 2009). More recently, a few additional specimens of *Ablechroiulus* were obtained from two Iberian locations and their study revealed that some of them belonged to an unknown species, while one female was identified to be *A. dudichi* Andrásy, 1970, to date only known to occur in tropical territories. Both species are described below.

The identity of *Ablechroiulus* has been a matter of controversy in the past, and the finding of this new Iberian material of the genus allowed a re-evaluation of its taxonomy, which is provided in this contribution.

Material and methods

Nematodes were extracted from soil samples using Flegg's method (1967) and a somewhat modified Baermann (1917) funnel technique. Nematodes obtained were later relaxed and killed by heat, fixed in 4% formaldehyde, and processed to anhydrous glycerine according to the method of Siddiqi (1964). Measurements were taken directly using an ocular micrometer and/or a curvimeter upon drawing the corresponding organ or structure. Illustrations were made with a drawing tube attached to a Leica microscope. LM pictures were taken using a Nikon Eclipse 80i microscope equipped with a Nikon Digital Sight DS-5M video camera. For SEM studies, fixed specimens were hydrated in distilled water, dehydrated in a graded ethanol (25, 30, 50, 70, 95, 100%) series and acetone (100%),