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Description of *Quercorhabditis rajouriensis* gen. n., sp. n. (Nematoda: Rhabditidae)

ALI ASGHAR SHAH¹, ABID HUSSAIN & SHAVISH VAID

Centre for Biodiversity Studies, School of Biosciences and Biotechnology, Baba Ghulam Shah Badshah University, Rajouri-185131, India

¹Corresponding author. E-mail: sherazizoo@gmail.com

Abstract

Quercorhabditis rajouriensis gen. n., sp. n. is described and illustrated. Distinctive characters include a labial region set off by a constriction and wider than adjoining body, heavily sclerotized cheilostom with arched rhabdions, barely differentiable stegostom, amphidelphic gonads, spicules with a free dorsal arm, and a leptoderan bursa with ten pairs of bursal papillae. The new genus resembles *Diploscapteriodes* Rahm, 1928 in the shape of cheilostom, presence of amphidelphic gonads, leptoderan bursa and long conoid tail. However, it can be differentiated from the latter genus in the shape of labial region, cheilostomal sclerotization, absence of ridge-like tooth in gymnostom, having spicules with a free dorsal arm, somewhat boat-shaped gubernaculum and in having ten pairs of bursal papillae. The new genus also resembles *Curviditis* (Dougherty, 1953) Andr ssy, 1983, *Rhabditella* (Cobb, 1929) Chitwood, 1933 and *Metarhabditis* Tahseen *et. al.*, 2004 in having spicules with free dorsal arm. However, it can be differentiated from these related genera by its heavily cuticularised cheilostom with arched rhabdions and barely differentiable stegostom. The new genus can further be differentiated from *Curviditis* and *Rhabditella* in having a well developed bursa and from *Metarhabditis* by its leptoderan bursa with ten pairs of bursal papillae arranged in 3+4+3 arrangement.

Key words: *Quercorhabditis*, Rhabditoidea, new genus, morphology, taxonomy

Introduction

During a survey of rhabditid nematodes in the Rajouri district of Jammu and Kashmir, India, a very interesting species was collected from inside a hollow cavity in the trunk of an oak tree (*Quercus leucotrichophora* L.). Although resembling *Diploscapteriodes* Rahm, 1928, *Curviditis* (Dougherty, 1953) Andr ssy, 1983, *Rhabditella* (Cobb, 1929) Chitwood, 1933 and *Metarhabditis* Tahseen *et. al.*, 2004, detailed observation revealed it to be a species which could not be assigned to any of the known genera of Rhabditidae. We therefore, propose the genus *Quercorhabditis* gen. n. to accommodate this species.

Material and methods

The sample was processed using modifications of Cobb's (1918) sieving and decantation and Baermann's (1917) funnel techniques. Extracted nematodes were simultaneously killed and fixed in hot F.A. (4:1) and dehydrated in glycerine–alcohol (5 parts glycerine + 95 parts 30% alcohol). The dehydrated nematodes were mounted in anhydrous glycerine. All diagrams and morphological observations were made on an Olympus BX51 DIC microscope and photographed using an Olympus DP25 digital camera.