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A new species of *Parapharyngodon* (Nematoda: Pharyngodonidae) infecting *Dermatonotus muelleri* (Anura: Microhylidae) from Caatinga, Northeastern Brazil

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Abstract. *Parapharyngodon silvoi* n. sp. (Nematoda: Pharyngodonidae) is described from the large and small intestine of the Muller's termite frog *Dermatonotus muelleri* (Boettger, 1885) from the biome Caatinga, Exu municipality, Pernambuco State, Brazil, *Dermatonotus muelleri* is a fossorial species with a specialized termite diet, and feeding and reproductive behavior occurring only during the wet season. The new species is distinguished from other species of the genus *Parapharyngodon* by showing ovary not coiled around the esophagus, morphology of anterior cloacal lip, spicule size and number of caudal papillae.

Key words: Nematoda, *Parapharyngodon*, new species, Amphibian parasites

Introduction

The nematode genus *Parapharyngodon* (Chatterji, 1933), (Cosmocercoidea: Pharyngodonidae) is currently composed of 57 species (Burse & Goldberg., 2015). They are globally distributed parasites, found in Australian (Johnston & Mawson, 1941), Ethiopian (Malan, 1939; Hering-Hagenbeck *et al.*, 2002), Palearctic (Castaño-Fernandez *et al.*, 1987; Roca *et al.*, 1986), and Oriental (Chatterji, 1933) and Neotropical regions (Freitas, 1957a; Ramallo *et al.*, 2002; Bursey & Brooks, 2004; Pereira *et al.*, 2011; Velarde-Aguilar *et al.*, 2015; Bursey & Goldberg., 2015).

Parapharyngodon is a typical lizard parasite (Ramallo *et al.*, 2002), however eight species are known to parasitize anurans: *Parapharyngodon alvarengai* (Freitas, 1957a) in the toad *Rhinella icterica* (Spix, 1824), (Luque *et al.*, 2005); *P. garciae* (Schmidt & Whittaker, 1975) in the frogs *Eleutherodactylus coqui* (Thomas, 1966) and *Eleutherodactylus* spp. (Schmidt & Whittaker, 1975; Dyer *et al.*, 1995); *P. osteopili* (Adamson, 1981) in the treefrog *Osteopilus septentrionalis* (Duméril & Bibron, 1841), (Adamson, 1981); *P. duniae* (Burse & Brooks, 2004) in the treefrog *Trachycephalus typhonius* (Linnaeus, 1758); *P. verrucosus* (Freitas, 1957b) in the frog *Dermatonotus muelleri* (Boettger, 1885), (McAllister *et al.*, 2010); and *P. grenadaensis* in the toad *Rhinella marina* (Linnaeus, 1758) (Burse *et al.*, 2013); *P. chamelensis* and *P. hylidae* in the treefrogs *Diaglena spatulata*, *Tripion petasatus*, and *Trachycephalus typhonius* (Velarde-Aguilar *et al.*, 2015).

During a survey of helminth parasites of frogs from Caatinga biome, Northeastern Brazil, the microhylid frog *D. muelleri* (Boettger, 1885) was found to harbor nematodes of a new species of *Parapharyngodon*, described herein.