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Infection by *Pachysentis* sp. (Acanthocephala: Oligacanthorhynchidae) in *Nasua nasua* (Carnivora: Procyonidae) from Pantanal Wetland

Ana Paula Nascimento Gomes^{1,2,*}, Natalie Olifiers^{1,3}, Rita de Cassia Bianchi⁴, Joyce G. R. Souza¹, Arnaldo Maldonado Jr¹.

¹ Laboratório de Biologia e Parasitologia de Mamíferos Silvestres Reservatórios, Instituto Oswaldo Cruz, Fundação Oswaldo Cruz. Avenida Brasil, 4365, Manguinhos, Rio de Janeiro, RJ, Brazil;

² Pós-Graduação em Biologia Parasitária, Instituto Oswaldo Cruz, Fundação Oswaldo Cruz, Rio de Janeiro, RJ, Brazil;

³ Universidade Veiga de Almeida, Rua Ibituruna, 108, Maracanã, Rio de Janeiro, RJ, Brazil;

⁴ Departamento de Biologia Aplicada à Agropecuária, Universidade Estadual Paulista “Júlio de Mesquita Filho”, Jaboticabal, São Paulo, Brazil.

ABSTRACT

The acanthocephalans are helminths intestinal parasites with wide geographic distribution around the world. Their life cycle is heteroxenic that use two host: arthropods as intermediate hosts (insects and crustaceans) and vertebrates as definitive hosts (fish, amphibians, reptiles, birds and mammals). The genus *Pachysentis* (Meyer, 1931) belongs to the class Archiachanthocephala and family Oligacanthorhynchidae and comprises 10 representative species which five have been reported in Brazil as parasite of carnivores and primates. Although acanthocephalans have been reported in *Nasua nasua* Linnaeus, 1766 (brown-nosed coatis) but species of the genus *Pachysentis* have not been reported yet. The brown-nosed coatis are common medium-sized carnivore distributed in most of South America; they reach particularly high abundance in the Pantanal wetlands. The present study reports the occurrence of acanthocephalan specimens collected from the gut of two brown-nosed coatis found dead in 2007 at the Nhumirim Ranch located in the Nhecolândia, sub region of the Pantanal, Mato Grosso do Sul State, Brazil. The two specimens of brown-nosed coatis were necropsied and acanthocephalans specimens were collected, washed in saline solution and stored in ethanol 70%. The specimens of acanthocephalans used for morphological characterization were clarified in creosote of faia and identified by light microscopy. Identification of the genus followed specific taxonomy papers and key. The *Pachysentis* sp. was identified by morphological information such as the number hooks in the proboscis (more than 36 hooks), size of the body, size of the eggs, host species and geographical distribution. This study reports a natural occurrence of *Pachysentis* sp. in *Nasua nasua* from the Brazilian Pantanal wetland, expanding the geographical distribution of this helminth in carnivores and specially in *Nasua nasua*.

Keywords: Acanthocephala, carnivores, taxonomy