

Detection of *Litomosoides* microfilariae in bats from the periurban regions of Campo Grande - Mato Grosso do Sul, Brazil

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The knowledge of wild animals, as well as the possible pathogens that they can host, is gaining worldwide emphasis, since their proximity to humans and domestic animals is becoming more frequent due to their constant loss of natural habitat, which make them potential disseminators and reservoirs of important pathogens. The order Chiroptera accounts for 20 to 22% of the total mammals present in the world, and for the most part, they are located in Neotropical regions. The present study aimed to detect microfilaria belonging to the genus *Litomosoides* spp (filo Nematoda) in bats. For the collection of biological material, 81 animals belonging to the family Phyllostomidae of four species were captured, being these *Artibeus lituratus*, *Artibeus planirostris*, *Carollia perspicillata* and *Glossophaga soricina*. The capture of these bats occurred in periurban areas in the municipality of Campo Grande, Mato Grosso do Sul, in three distinct areas, from July to October 2015. The collected material consisted of blood samples for blood smear and fragments of the liver, lung, heart and spleen for the imprint technique, fixed with methanol and stained by GIEMSA technique. In order to collect the fragments of organs, anesthesia and laparotomy of the bats were carried out respectively and subsequent to their euthanasia. The analysis of the samples was based on optical microscopy in the objective of 100 xs. Of the 81 animals collected, 12 presented the microfilaria, totaling 14%. The species *A. planirostris* was the most affected with 83.3%, followed by *A. lituratus* with 8.3% of infected animals and 1 unidentified animal, representing 8.3%. Microfilariae can be found in the blood stream that is still immature due to its transmission medium, which occurs through the hematophagy of arthropods, but when they reach their adult stage they are found in the abdominal or thoracic cavity of their hosts. Studies have already reported that one-third of the species of bats in South America were parasitized by helminths. Species belonging to the genus *Litomosoides* are found exclusively in mammals of the Neoartic and Neotropical regions, however the largest occurrence is in South America.