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**DETECTION OF MICROSPORIDIA SPORES IN STOOLS OF BATS IN THE STATE OF
SÃO PAULO (BRAZIL)**

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Ecological disturbances can exert an important role on the emergence and dissemination of zoonotic parasitic diseases, including microsporidiosis. Microsporidiosis is an increasingly important opportunistic protozoan infection in a wide range of vertebrate and invertebrate hosts. Of the many species of microsporidia currently known to infect humans, *Enterocytozoon bieneusi* and *Encephalitozoon intestinalis* are the most common, specially in immunocompromised individuals, such as HIV-positive patients, and are associated with persistent diarrhea, weight loss and systemic disease. In this investigation it was performed a survey of occurrence of microsporidia in fecal samples of 597 bats from the state of São Paulo, Brazil. These animals were captured and brought for rabies control to the Laboratory of Zoonoses and Diseases Transmitted by Vectors. Three hundred fifty-seven of these bats were insectivorous (*Eptesicus furinalis*, *Eumops glaucinus*, *Eumops perotis*, *Molossus molossus*, *Myotis nigricans*, *Myotis ruber*, *Nyctinomops macrotis*, *Tadarida brasiliensis*, *Histiotus velatus*), 123 were frugivorous (*Artibeus fimbriatus*, *Platyrrhinus lineatus*, *Sturnira lilium*), 112 were nectar-feeding bats (*Glossophaga soricina*) and 5, hematophagous (*Desmodus rotundus*). Fecal specimens were examined for microsporidia spores using the Gram-Chromotrope staining technique. Results showed that from the total captured 52 bats (8.7%) were positive for these protozoans. Frugivorous, insectivorous, nectar-feeding and hematophagous bats presented prevalences of 14.6% (18/123), 7.6% (27/357), 5.3% (6/112) and 20% (1/5), respectively. The stool samples revealed a variable number of spores stained in pinkish red with the use of Gram-Chromotrope stain. The spores showed an ovoid shape and measured 0.9 to 1.6 micrometer, some presenting the typical belt-like stripe of these protozoans. This study emphasizes the importance of bats as potential sources of microsporidia to human and animal populations.

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