

SMALL MAMMALS AS CARRIERS HOSTS OF *Leptospira* spp. IN THE WESTERN AMAZON FOREST

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Leptospirosis stands out as a plural and neglected disease, that permeates various scenarios (urban, rural and wild). The Amazonian biome has the ideal conditions for maintaining and disseminating *Leptospira* spp. The high humidity and temperature associated to the high diversity of mammals and potential renal bearers of the bacteria, creates a scenario that exposes the individuals to the different strains of *Leptospira*. This study aimed to investigate the role of small mammals on leptospirosis epidemiology in the Western Amazon, Brazil. For this, 103 animals including small rodents and marsupials were captured in four locations in the state of Acre, Western Amazon. The trapped animals were anesthetized and euthanized for collection of blood, kidney and urine. Microscopic agglutination test (MAT) was performed for the detection of anti-leptospiral antibodies. Samples were cultured. PCR was performed on the totality of samples for detection of gene *lipL* 32, using the *lipL*32 primers-45F and *lipL*32-286R. A total of 15 serum samples were submitted to MAT, and only one was reactive showing titre of 100 against Autumnalis and Australis serogroups. None bacterial isolate was obtained, but PCR yielded 44.7% positive animals. Of the 103 animals examined, we could identify 24 species belonging to the orders Didelphimorphia and Rodentia. Out of them, 17 species were positive to PCR. We detected a high prevalence of the pathogenic *Leptospira* spp. in a high diversity of rodent and marsupial species, in the four studied sites, with different use and status of conservation, in the Amazon forest. Also, we did not find any correlation among species habits and forest strata to leptospiral infection rates. This study reports the first evidence of *Leptospira* spp. on mammal's carrier hosts in this region.

Keywords: Leptospirosis, small mammals, carrier hosts

Development agency: Field and lab work were supported by grants from Institutional Agreement IOC-Fiocruz/IFAc and from CNPq and FAPAC to Dra. Luciana Medeiros (CNPq 428213/2016-2 and PPSUS/FAPAC 001/2015), to Dr. Elder Morato e to Dr. Marcus Silveira (PPBio/CNPq 457540/2012-5). The license for collection was issued by Instituto Chico Mendes de Conservação da Biodiversidade - ICMBio (SISBIO l. 13373). We also thanks to UFAC for conceding the PIBIC scholarships.