Investigation of *Leishmania spp* Infection in Wild Mammals in the State of Espírito Santo, Brazil

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Leishmaniasis is an infectious and zoonotic disease, registered in several countries of the world, being endemic in the state of Espírito Santo, Brazil. It presents in cutaneous and visceral form and is caused by protozoa of the genus *Leishmania spp* that multiply within their hosts' macrophages (humans and other mammal species), and its transmission occurs by females of infected sand flies. The objective of this study was to investigate the occurrence of natural infection by *Leishmania spp* in wild mammals found dead (by trampling or natural death) in the regions of Alegre and Serra; and Sooretama Biological Reserve, in the state of Espírito Santo, and their epidemiological role in the *Leishmania spp* transmission. Between January 2018 and December 2019, 119 animals were collected. Of these, 100 of 15 species were analyzed. The species *Didelphis aurita* (black-eared opossum) 26.1% (31/119), *Callithrix geoffroyi* (white-headed marmoset) 26.1% (11/31) and *Cerdocyon thous* (crab-eating fox) 14.3% (17/119) were the most found. Through PCR, the *Leishmania spp* was detected in 4 animals (4%): 1 *Cuniculus paca* (paca) (25%) and 3 *Callithrix geoffroyi* (white-headed marmoset) (10%). In the histopathological analysis, the parasitic amastigote form was not observed. Natural infection by *Leishmania spp* in *Callithrix geoffroyi* (white-headed marmoset) constitutes the first report in the literature of infection of this primate species, and the infection in *Cuniculus paca* (paca) constitutes the first report in the literature of infection of this rodent species in the state of Espírito Santo. Despite confirmation of the occurrence of *Leishmania spp* infection in rodents and primates in the state of Espírito Santo, the role of these species in the transmission of this zoonosis still needs further longitudinal studies to identify the effects of a given parasite on the population and/or individual, its seasonal fluctuation, infection stability, and transmissibility.