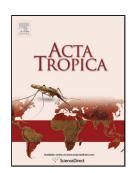
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ACCEPTED MANUSCRIPT

First detection of Leishmania spp. DNA in Brazilian bats captured strictly in urban areas

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Highlights



- 1. we analyzed 488 bats captured in urban area for the presence of Leishmania ssp. kDNA.
- 2. 23.9% of the bats were positive for the presence of *Leishmania* spp. kDNA.
- 3. we detected L. infantum and L. amazonensis kDNA in Desmodus rotundus bat.
- 4. Bats may be a potential reservoir of *Leishmania* species in the urban scenario.

Leishmania spp. is a protozoan that maintains its life cycle in domestic and wild animals and it may include bats, a population that has increased in urban environments. This study aimed to investigate the presence of Leishmania spp. in bats captured strictly in urban areas that are endemic for visceral leishmaniasis. The spleen and skin samples of 488 bats from 21 endemic cities in northwestern São Paulo State, Brazil, were tested for the presence of Leishmania kDNA using real-time PCR. Differentiation from Trypanosoma spp. was achieved by amplifying a DNA fragment of the ribosomal RNA gene. The presence of Leishmania spp. kDNA was verified in 23.9% of bats and Trypanosoma spp. DNA was identified in 3.9%. Leishmania species differentiation revealed the presence of L. amazonensis in 78.3% of the bats; L. infantum in 17.4%, and 1 sample (4.3%) showed a mix pattern of L. infantum and L. amazonensis. We also detected, for the first time, L. infantum and L. amazonensis DNA in Desmodus rotundus, the hematophagous bat. The presence of Leishmania spp. DNA in bats strictly from urban

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