

EPIDEMIOLOGICAL STUDIES IN A CUTANEOUS LEISHMANIASIS AREA IN THE MUNICIPALITY OF BELA VISTA, MATO GROSSO DO SUL STATE, BRAZIL

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ABSTRACT: The present epidemiological studies permitted the isolation and identification of *Leishmania (Leishmania) amazonensis* from patients of the municipality of Bela Vista, Mato Grosso do Sul State, Brazil, which led to a better knowledge of this parasite's distribution. Phlebotomines were captured from February 2004 to January 2006 using automatic light traps (ALTs), Shannon traps and Disney traps in forest environments, and only ALTs in domestic animal shelters. When all three types of traps were used, 1,999 specimens were captured. They belonged to three subtribes, eight genera and nineteen species of Phlebotominae: Brumptomyiina - *Brumptomyia avellari*, *Br. Brumpti*, and *Brumptomyia* sp; Lutzomyiina - *Evandromyia aldafalcaoae*, *Ev. bourrouli*, *Ev. cortelezzii*, *Ev. evandroi*, *Ev. lenti*, *Ev. teratodes*, *Ev. termitophila*, *Lutzomyia longipalpis*, *Pintomyia christenseni*, and *Sciopemyia sordellii*; Psychodopygina - *Bichromomyia flaviscutellata*, *Nyssomyia whitmani*, *Psathyromyia aragaoi*, *Ps. campograndensis*, *Ps. punctigeniculata*, and *Ps. shannoni*. Out of these specimens, 22.7% were captured using Shannon traps (33.9% of *Ps. punctigeniculata* females, 7.7% of *Bi. flaviscutellata*, and 4.4% of *Lu. longipalpis*); 17.7% using ALTs (70.6% of the *Brumptomyia* specimens captured in the forest, and 80.2% of the *Lu. longipalpis* specimens captured in domestic animal shelters); and 59.6% using Disney traps (57.6% *Ev. bourrouli* and 41.4% *Bi. flaviscutellata*; 81.7% of the females belonged to the latter). *Evandromyia evandroi* was recorded for the first time in Mato Grosso do Sul State. *Bichromomyia flaviscutellata* specimens were captured in all the forest environments sampled. It was more frequent during dry periods; however, there was a peak of occurrence in March. No natural infection by *Le. amazonensis* was observed in *Bi. flaviscutellata*. However, its peak of capture coincided with the period of natural infection in hamsters (*Mesocricetus auratus*) used as bait in Disney traps, which suggests the existence of an enzootic cycle in the area and people who enter it may be periodically and accidentally infected, since females of this sandfly were captured (although at a low frequency) on Shannon traps, indicating they are anthropophilic. Besides *Le. amazonensis* and *Le. chagasi* vectors, *Ny. whitmani*, a known vector of *Le. braziliensis*, was found, albeit at a very low frequency.

KEY WORDS: *Leishmania amazonensis*, Phlebotomines, animal bait, natural infection, Mato Grosso do Sul State, vectors.

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