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Monthly variation and natural infection in *Lutzomyia umbratilis* Fraiha & Ward, 1977, *Lutzomyia anduzei* Rozeboom, 1942, *Lutzomyia flaviscutellata* Mangabeira, 1942 and *Lutzomyia olmeca* nociva Young & Arias, 1982 (Diptera: Psychodidae) with trypanosomatids (Kinetoplastida: Trypanosomatidae) in the training area military in the Amazon, Amazonas, Brazil*

Variação mensal e infecção natural em Lutzomyia umbratilis Ward & Fraiha, 1977, *Lutzomyia anduzei* Rozeboom, 1942, *Lutzomyia flaviscutellata* Mangabeira, 1942 e *Lutzomyia olmeca* nociva Young & Arias, 1982 (Diptera: Psychodidae) por tripanosomatídeos (Kinetoplastida: Trypanosomatidae) em área de treinamento militar na Amazônia, Amazonas, Brasil

Variación mensual y la infección natural en *Lutzomyia umbratilis* Fraiha & Ward, 1977, *Lutzomyia anduzei* Rozeboom de 1942, *Lutzomyia flaviscutellata* Mangabeira, 1942 y *Lutzomyia olmeca* nociva Young & Arias, 1982 (Diptera: Psychodidae) en tripanosomátidos (Kinetoplastida: Trypanosomatidae) en el área de formación militares en el Amazonas, Amazonas, Brasil

Luís Henrique Monteiro Gomes
Programa de Pós-Graduação em Entomologia, Instituto Nacional de Pesquisas da Amazônia, Manaus, Amazonas, Brasil

Antonia Maria Ramos Franco
Laboratório de Leishmaniose e Doença de Chagas, Instituto Nacional de Pesquisas da Amazônia, Manaus, Amazonas, Brasil

Introduction: In the military reserve area located between kilometers 54 and 70 of the AM-010 Highway (Manaus-Itacoatiara) in Amazonas State, there are five military training bases (BIBR, BI1, BI2, BI3 and BI4) where cases of American tegumentary leishmaniasis (ATL) have been reported. **Objectives:** The aims of this study were as follows: i) to determine the monthly variation in the frequency and distribution of *Lutzomyia umbratilis*, *L. anduzei*, *L. flaviscutellata* and *L. olmeca* nociva, vectors of ATL, at training bases in the military reserve; and ii) to assess the natural infection rate of these phlebotomine sandfly species by trypanosomatids at the affected military bases. **Material and Methods**: The study was conducted between March 2002 and February 2003. Phlebotomine sandflies were captured using CDC light traps, sucking aspirators placed at the base of trees and animal bait. Parasites were isolated from the sandflies using NNN medium (agar-blood) and susceptible laboratory animals (hamsters). **Results**: A total of 11,583 phlebotomine sandflies, comprising 58 species, were captured. The four vector species accounted for 6,182 (53.3%) of these flies; *L. umbratilis* was the most abundant species collected (4,293; 69.4%), followed by *L. anduzei* (890; 14.4%), *L. olmeca* nociva (668; 10.8%) and *L. flaviscutellata* (331; 5.4%). The only species that was collected during each of the study months was *L. flaviscutellata*. The greatest number of phlebotomine sandflies was captured at the BI1 base (2,573; 47.6%), followed by the BIBR base (1,496; 27.6%), the BI2 base (899; 16.6%), the BI3 base (366; 6.8%) and the BI4 base (73; 1.4%). Of the 821 females that were dissected, 15 (1.96%) specimens of *L. umbratilis* from military bases BI1 and BIBR were found to be naturally infected by trypanosomatids. It was not possible to transport experimental animals to the sampling sites (military bases), which hindered the direct isolation of flagellates. Isolation of promastigotes from the guts of insects was not performed because contamination of the culture media prevented their inoculation into experimental animals. **Conclusion**: The monthly variation in the frequency of the four vector species in the military training areas showed no regular pattern, and *L. umbratilis* was identified as the species that was likely to be responsible for the transmission of ATL in this military reserve.

Keywords: Vector Insects; Time-Series Studies; Trypanosomatina; Psychodidae; Leishmaniasis.

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Correspondence / Correspondência / Correspondencia:
Luís Henrique Monteiro Gomes
Rua 21, nº 687, conjunto Castelo Branco
Bairro: Parque 10 de Novembro
CEP: 69055-390 Manaus-Amazonas-Brasil
E-mail: luis@inpa.gov.br

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