PHLEBOTOMINE SAND FLIES (DIPTERA, PSYCHODIDAE) IN AN ENDEMIC AREA FOR VISCERAL LEISHMANIASIS IN THE STATE OF PIAUÍ, BRAZIL

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In Brazil, visceral leishmaniasis (VL) is a life-threatening zoonosis caused by *Leishmania infantum*, transmited mainly by *Lutzomyia longipalpis* sand flies (Diptera, Psychodidae) and predominant in the Northeast region, including Piauí state. The knowledge of the sand fly fauna and behaviour is essential for taking better prevention and control measures against VL in endemic locations. Thus, the objective of the present study was to identify the sand fly fauna from Picos, an endemic municipality for visceral leishmaniasis in the southeast of Piauí state. Sand flies were collected using light traps set in five points in neighbourhoods with reported cases of VL in the urban area of the city. Traps were installed for two consecutive nights from 5 PM to 8 AM. The collections occurred from november 2024 to february 2025 and the sand flies were identified to species level using light microscopy following the classification proposed by Galati. A total of 31 collections were performed and 762 sand flies were captured. The mean of collected sand flies per trap was 24,6, ranging from 0 to 248. Sand flies were catched in all points of collection. November was the month with the lowest number of collected flies (58) and the highest number of captured flies was registered in february (392). Males represented 71,5% of the sampled flies and females, 28,5%, in a proportion of 1:2,5 (F:M). All (100%) of the sand flies were identified as *Lutzomyia longipalpis.* Male *L. longipalpis* populations 1S (one spot) and 2S (two spots) were detected occuring in sympatry in the studied area. Our findings indicate that sand flies are present throughout the urban area of Picos, with a particular prevalence of *Lutzomyia longipalpis*, the primary vector of *L. infantum*. This underscores the potential risk of leishmaniasis transmission in urban environments. Additionally, there is a noticeable trend of increasing vector populations at the beginning of the year, coinciding with the region's rainy season.

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