MOSQUITO SURVEILLANCE IN THE UNIVERSITY OF BRASÍLIA USING LIGHT-WEIGHT ASPIRATORS

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In 2024, Brazil faced its most severe dengue epidemic to date. Additionally, data from the Brazilian Ministry of Health revealed that the Federal District reported the highest dengue incidence across the country. Given the importance of understanding transmission dynamics in areas with frequent human movement, this study aimed to analyze the spatial distribution of adult *Aedes aegypti* (Linnaeus, 1762) and *Culex quinquefasciatus* (Say, 1823) across different locations of the University of Brasília. Mosquitoes were captured over two days each month from August 2024 to January 2025 by teams of researchers using handheld battery-operated aspirators across three areas on campus I and campus II as a whole. Each day, eight predetermined sites were sampled within each area, with two rounds of aspiration at each site, lasting up to five minutes per round, and a one-hour interval between rounds. The captured insects were then transported to the laboratory for identification and counting. A total of 1,451 mosquitoes were captured, comprising 581 *Ae. aegypti* and 870 *Cx. quinquefasciatus*. Area 2 of campus I had the highest total number of mosquitoes captured, with 881 mosquitoes (360 *Ae. aegypti* and 521 *Cx. quinquefasciatus*), while campus II had the lowest, with only 46 mosquitoes (14 *Ae. aegypti* and 32 *Cx. quinquefasciatus*). The month with the lowest total mosquito capture was August 2024, during the dry season, while the highest number of captures occurred in November 2024, during the rainy season. In area 2 of campus I, the peak of *Cx. quinquefasciatus* captures was observed in September, while the peak of *Ae. aegypti* was recorded in November. These results show variation in mosquito abundance between areas, with *Cx. quinquefasciatus* being more frequent overall. Moreover, these findings indicate that the aspiration technique could detect seasonal fluctuations in adult mosquito populations, with both species exhibiting varying peak times depending on the area.

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