Enhancing *Aedes aegypti* Surveillance: A Combined Approach Using PneuTrap3D® Ovitraps and +Lugar Platform

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Aedes aegypti, the primary vector of arboviruses, is a synanthropic mosquito of great importance for Public Health. PneuTrap3D® is a trap developed for egg capture, allowing monitoring and quantification of mosquitoes' presence. The aim of this experiment was to monitor the infestation of *Aedes* on the campus of State University of Feira de Santana - UEFS, as well as the implementation of +Lugar Platform to assess risk areas. For this, PneuTrap3D® ovitraps were distributed at pre-established points, during the periods of January to May (I) and December (II), totaling 137 and 30 traps, respectively. After one week, the traps were collected, and the eggs were counted under a stereomicroscope at 20x magnification. In period II, the collection points were marked on the +Lugar platform, which allowed for georeferencing and environmental data collection. The results were transcribed into Excel, and the Ovitrap Positivity Index (IPO = number of positive ovitraps/total number of ovitraps) and the Egg Density Index (IDO = total number of eggs counted/number of positive ovitraps) were calculated. In period I, the IPO was 80 (58.39%; 95% CI = 50.00-66.32) and the IDO was 34.01. In period II, 30 traps were used, of which two yielded positive results, with an IPO of 6.37% and an IDO of 1.50. At the end of November, the UEFS campus underwent a pest control process, which may have contributed to the low IPO and IDO in the second period. Additionally, the second period was dry and without rain, which may have also contributed to the results. The use of +Lugar revealed 11 points with the presence of potential breeding sites for larvae, such as water pots, pet food, water tanks, flowerpots, tires, and bottles. Thus, +Lugar enabled the georeferencing of potential risk areas, information that can be used to implement preventive measures, which, combined with egg count-based monitoring, could impact the control of *Aedes* populations and the incidence of arboviruses.

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