+Lugar Platform for Mapping Geohelminthiases and Arboviruses Risk: Data Integration for Epidemiological Surveillance

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Health as a right for all requires not only effective public policies but also active societal engagement. Collaborative mapping on platforms like OpenStreetMap enables the production and sharing of geospatial data. The new +Lugar platform, in addition to participatory zoonosis mapping, enables the identification of its predictors through gamification features and also ensures the inclusion of external projects aimed at social contribution. This study aimed to evaluate the use of +Lugar for participatory mapping of geohelminth infections and Aedes spp. infestation. The study areas were State University of Feira de Santana (UEFS) and the neighboring Campo Limpo district, with collection zones marked using Google Earth. Animal fecal samples were collected in public areas of both locations, while at UEFS, PneuTrap3D ovitraps were also distributed. Collection points and environmental information were recorded in +Lugar, and all samples were analyzed in the laboratory. The information in +Lugar was analyzed and associated with the laboratory data, building a database in Excel and performing statistical analyses using EpiInfo 7.2 and SaTScan 10.2.5. The platform facilitated the georeferencing of the samples, allowing for the precise location of collection sites and their association with environmental factors. Regarding fecal sample collection, the data obtained allowed for spatial analysis and the detection of clusters of positive samples within the Campus. For Aedes, the platform highlighted the presence of potential larval breeding sites, such as water and food bowls, water tanks, plant pots, tires, and bottles. It was noted that improvements to the platform's interface are needed to provide users with more autonomy in creating and editing projects. The integration of georeferenced, epidemiological, and environmental data into a user-friendly application makes epidemiological surveillance more efficient, supporting the planning of control and prevention actions.

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