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Peer Review

Review of: "Aedes Distribution and Meteorological Effect on Ovitrap Index in Coastal Area of Besut, Terengganu: An Entomological Study"

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The study addresses an important public health topic and uses a relatively large number of ovitraps; however, several weaknesses limit its scientific robustness. First, the cross-sectional design restricts causal interpretation between meteorological variables and Aedes density, and the study relies only on simple Pearson correlation without controlling for confounders such as humidity, wind speed, seasonal variation, human population density, or environmental sanitation, which may bias results. Second, the sampling strategy is limited to only 30 occupied premises, raising concerns about representativeness and selection bias, particularly since unoccupied premises and natural breeding habitats were excluded. Third, methodological details regarding ovitrap placement standardization, species identification procedures, and quality control of meteorological data are insufficiently described, which affects reproducibility. Additionally, the statistical analysis lacks multivariate or time-series modeling that would better capture temporal trends and lag effects between weather variables and mosquito abundance. To improve the study, the authors should expand sampling diversity, include additional environmental and socio-ecological variables, apply advanced statistical approaches such as regression or longitudinal modeling, provide detailed methodological standardization, and strengthen the discussion by comparing findings with broader regional studies and acknowledging limitations more explicitly.

Declarations

Potential competing interests: No potential competing interests to declare.

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