

UNIVERSITI TEKNOLOGI MARA

**INFESTATION LEVEL OF DENGUE VECTOR
ACCORDING TO DAY EXPOSURE OF OVITRAP
IN DENGUE CLUSTER AREA**

PAULINA PUNGGING

Project submitted in fulfilment of requirement for the degree of

Bachelor In Environmental Health And Safety

(Hons.)

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DECLARATION BY STUDENT

Project entitled ‘Infestation Level of Dengue Vector According to Day Exposure of Ovitrap in Dengue Cluster Area,’ is a presentation of my original research work. Whenever contributions of others are involved, every effort is made to indicate this clearly, with due reference to literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of Project Supervisor, Dr. Shantakumari Rajan. It has been submitted to the Faculty of Health Sciences in partial fulfillment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons).

Student’s signature :

.....

(PAULINA PUNGGING)

2014867102

911018-12-6742

Date:.....

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ABSTRACT

Malaysia is one the nations that endemic in transmission of dengue disease. The purpose of this study was to investigate the infestation levels of *Aedes* mosquitoes using ovitrap with different number of day exposure of ovitrap in field. The ovitrap were left in field for three (3) days, five (5) days and seven (7) days and the data was collected according to day exposure. Result implied that Positive Ovitrap Index (POI) and mean egg per trap (MET) of *Aedes* mosquitoes in ovitrap was statistically significant different to number of day exposure [three (3) days = POI : 20.00 %, MET : 5.69, five (5) days = POI : 26.25 %, MET : 7.3, seven (7) days = POI : 40.00 %, MET : 11.41]. There is strong relationship between number of day exposure and the densities of egg where it can be concluded that the longer the trapping period the higher the densities of mosquito recorded. However, five (5) days exposure considered preferably to deploy ovitrap in field since seven (7) days exposure was too long and completed life cycle of *Aedes* mosquitoes might be expected in certain ovitrap. Hence, it is directly affects the vector control programs when to launch 'alert' since the programs mostly relied on the threshold point of POI. Overall, the result from study indicates a new protocol of five (5) days can be used to investigate the infestation level of *Aedes* mosquitoes in dengue area.

Keywords: Aedes mosquitoes, dengue disease, infestation, oviposition behaviour, day exposure, ovitrap, mean egg per trap (MET), Positive Ovitrap Index (POI), vector control