CLIMATIC FACTOR INFLUENCING DENGUE OCCURENCES: EVIDENCES FROM KOTA KINABALU COASTAL AREA

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Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree Bachelor in Science (Hons)
Biology in the Faculty of Applied Science
Universiti Teknologi MARA

JANUARY 2018

ACKNOWLEDGEMENTS

Upon completion of this project, I would like to express my gratitude to many parties. My heartfelt thanks to my supervisor, Mr. Ajimi Hj. Jawan who is also the FYP Coordinator for his guidance and supports along completion of this project. I also want to say "thank you" to all panel during VIVA presentation for their constructive comments. I also want to be thankful to the Vector Control Kota Kinabalu health officers for their guidance and knowledge in completion of this project. Also I would like to thank my parents that continuously giving advice and financial support. Lastly, a million thanks to all the informants that giving cooperation during the study and for those that indirectly contribute to this study.

Mohamad Azrin Bin Roslan

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ABSTRACT

CLIMATIC FACTORS INFLUENCING DENGUE OCCURRENCES: EVIDENCE FROM KOTA KINABALU COASTAL AREA

Dengue is the most common mosquito-borne viral disease in the world. In Malaysia, death toll increases over the last decade. However, scarce studies have been done between the relationship of dengue occurrences and climate change especially in Sabah. A laboratory experiment has been conducted to investigate the effect of several climate factors on the rate of life cycle of *Aedes aegypti*. In real- time event, time series data from 2011 to 2016 of Department of Meterology and Vector control were analysed to study climate factors towards occurrences of dengue. This study suggests that in high temperature with high humidity the rate of life cycle of *Aedes aegypti* decrease, prompting faster accumulation of this vector. In addition, this study also suggests that in the rainy season dengue occurred significantly ($p< 0.05$) compared to other weather. Further analysis of the error deviation was also conducted in this study and it shows there is a great potential for forecasting the occurrences of dengue outbreak in the future.