



**FLIES SUCCESSION OCCURING ON COVERED AND UNCOVERED RABBIT
CARCASSES IN PUNCAK ALAM, SELANGOR.**

By

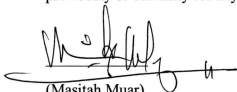
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DECLARATION

I hereby declare that this thesis is my original work and has not been submitted previously or currently for any other degree at UiTM or any other institutions.



(Masitah Muar)

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ABSTRACT

Forensic entomology is the study of insects and arthropods in investigations of criminal cases. Flies are the major type of insects that contribute to medico-criminal investigations. Their succession on cadavers are often used to estimate the Post Mortem Interval (PMI). However, in Malaysia, knowledge on the flies succession of particular conditions of human cadaver especially the one which disposed in zipped suitcases is minimal. The aim of this study was to investigate the succession of flies and their species diversity over the decomposition process of rabbit carcasses concealed in a zipped bag. A triplicate study was done to six male rabbits (*Oryctolagus cuniculus*) under two sets of carcasses conditions, which are concealed in a bag (covered) and normal (uncovered). Observation and data collection were done for 14 days at the study site of UiTM Puncak Alam, Selangor (3°12'23.9"N, 101°27'00.6"E). There were four families of diptera recorded in this study, which are Calliphoridae, Muscidae, Sarcophagidae and Phoridae. Flies succession in covered carcasses is higher compared to uncovered carcasses, with *Chrysomya megacephala*, *Chrysomya rufifacies* and *Ophyra* sp. being the most abundant species in both conditions of the carcasses. All species arriving on both conditions are the same. The decomposition rate of covered carcasses is slower than in uncovered carcasses. Data collected in this study can hopefully serve as the basis for future studies on forensic cases involving body disposal in suitcase in Malaysia.

CHAPTER 1

INTRODUCTION

1.1 Background of study

Insects are an amazing organisms that can be found everywhere in our ecosystem. They are believed to have existed over 300 million years and continuously to evolve to adapt to the changing environment of their habitat. Insects are the largest group of organisms and contributed about one-half to two-third of global biodiversity. There are about 10 million species of insects are available living in this planet earth, with about a million species have been identified and described. In fact, research suggested that it is possible that around 3 to 30 million species may exist (Byrd & Castner, 2009).

Classified under the class of Insecta, the most familiar order to human are the Hymenoptera, Isoptera, Hemiptera, Dermaptera, Collembola, Zoraptera, Dictyoptera, Coleoptera and Diptera. Being ubiquitous, they occupy every part of the living habitat worldwide and thus, have a close relation to human daily activities (Kim, 2009).