DIPTERA SUCCESSION ON BURNED AND UNBURNED RABBIT CARCASSES AT PUNCAK ALAM AREA

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.

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ABSTRACT

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Forensic entomology is the study of insects or arthropod which can be insert into part of the evidence in legal cases especially when involving with death enquiries. The dipteran succession was appear to be differ for each location because it depend on environment condition. The aim of this study was to investigate the dipteran succession and compare the species diversity between burned and unburned rabbit carcasses. The study was conducted inside UiTM Puncak Alam Campus, Selangor by using four male rabbit from the species of New Zealand white rabbits (*Oryctolagus cuniculus*). All rabbit used were 2.7±0.2 kg and sacrificed using sodium pentobarbital through intraperitoneal. Observational study was conducted for 15 days; twice visit per day for the first four days, once per day for the next days, and climatological data (ambient temperature, relative humidity, and light intensity) were collected. The spearman correlation was used analyse the relationship between abundance of diptera and diversity of diptera species with climatological data; ambient temperature, relative humidity, and light intensity. Only adult flies was collected as data. *C. megacephala* was the first dipteran species that visiting the carcass for both condition on the first day (day 0). More dipteran species (unidentified species from Sarcophagidae family and *C. rufifacies*) was observed on unburned carcass while on burned carcass *C. rufifacies* was observed to present on the second day. The most dominant species on unburned carcasses was *C. rufifacies* whereas on burned carcasses *C. megacephala* was the most dominant species. The rate of decomposition for burned carcass was appeared to be faster than unburned carcass. From this study, we conclude that the burned carcass attract more population and had great species diversity of dipteran compared to unburned carcass.

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