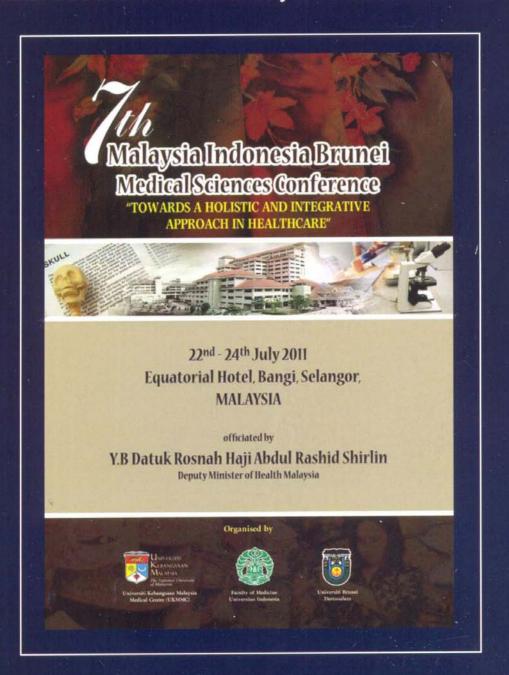


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ENTOMOFAUNA OBTAINED FROM FORENSIC ENTOMOLOGICAL STUDIES CONDUCTED IN A SECONDARY FOREST IN ULU GOMBAK, SELANGOR

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Background:

Medico-legal forensic entomology plays an important role in determination of time since death or post mortem interval (PMI). The present study reported the entomofauna recovered from forensic entomological studies conducted in a forested area in Ulu Gombak, Selangor.

Materials and Methods:

Monkey carcasses were used as model for human decomposition study. Monkeys were euthanized in accordance with established procedures by Department of Wildlife and National Parks Peninsular Malaysia. The study protocol was approved by Institute Research's of Animal Care and Use Medical Unit [ACUC/KKM/02(2/2008)]. After death was confirmed, the monkey carcasses were placed in outdoor (two replicates) and indoor (two replicates), respectively. The carcass was monitored daily from until no more larvae and bones were observed from the carcass. Adult flies were caught by using a sweep net. The fly larvae, ants and beetles were collected using forceps for preserved in 70% ethyl alcohol. The collected specimens were then processed for species identification.

Results:

Flies (Diptera) belonging to four families were obtained from the studies. However, only 13 species of flies belonging to three families can be identified, which are Calliphoridae, Muscidae and Stratiomyiidae, while a number of flies belonging to the family of Sarcophagidae were not able to be identified. Flies belonging to family Calliphoridae were the dominant flies as forensic indicator, followed by Muscidae, Sarcophagidae and Stratiomyiidae. This study showed that *Chrysomya villeneuve* (Patton), *Chrysomya chani* (Kurahashi) and *Chrysomya pinguis* (Walker) were dominant in monkey carcasses in forested area. On the other hand, three species of ants (Hymenoptera) were found visiting the carcasses in all decomposition stages. Beetles (Coleoptera) belonging to eight families were obtained throughout the studies.

Conclusion:

Different species of insect fauna obtained from carcasses may act as a habitat indicator. Generally, *Chrysomya* sp. (Diptera: Calliphoridae) were mainly found in outdoors; while beetles found in indoor were more diverse compared to outdoor.

Keywords:

forensic entomology, post mortem interval (PMI), Diptera, Hymenoptera, Coleoptera