

**THE TAXONOMY OF SUBFAMILY MYRMICINAE AND  
PONERINAE (HYMENOPTERA: FORMICIDAE) AT  
FOREST RESERVE AND PLANTATION IN UiTM PAHANG**

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## ABSTRACT

Ants or Formicidae is a class of invertebrates with more than 12,000 described species. Formicidae is under class of insect which is under phylum of arthropod that consist three pairs of leg, one pair of wing and three body segment which are head, thorax and abdomen. Formicidae also consist compound eyes and one pair of antennae. Subfamily Myrmicinae present of petiole and post-petiole while the subfamily Ponerinae present of single petiole only. The research of species Formicidae is located in UiTM Pahang Kampus Jengka and was focused at Forest Reserve and Plantation in UiTM Pahang. The diversity of ants in tropical area are great. However the information from Pahang especially from UiTM is lack. The problem statement are how many species, what the difference morphological characteristics and where to map the existance of ants species in UiTM Pahang. The taxonomy of Formicidae in UiTM Pahang was provided more information about the species richness and abundance that was determined its distribution in UiTM Pahang. Thus, these research objectives are to determine the species of Formicidae, describing morphological characteristics and construct the dichotomous keys, and determine the distribution of Formicidae found in UiTM Pahang. In methodology, winkler method accumulated species more rapidly than did pitfall traps and had greater total species richness and higher abundance of ants recorded. At the end of this research, the distribution of species Formicidae was recorded which a total of 580 individuals consist of 37 species from 16 genera and 4 subfamilies namely Myrmicinae, Formicinae, Pseudomyrmicinae, and Ponerinae, were discovered in this study. Furthermore, the common species that exist in UiTM Pahang is under genus *Polyrachis*, *Camponatus* and *Monomorium* and the rare species is under subfamily Pseudomyrmicinae. The dichotomous key was constructed and the distribution of all species was determined their longitude and latitude. The result from this research is important as a way to provide references and understanding about the type of Formicidae species that exist in UiTM Pahang because this research is probably the first study that has been recorded in UiTM Pahang about fauna of ant species.

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