Termite fauna of Lambir Hills National Park

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The knowledge of insect biodiversity in Sarawak is limited, and the termites, belong to the insect order Isoptera, are among the understudied taxa. They are of economic important because of their damages to wood materials. This has always obscured their importance to the ecological role in the breakdown of vegetative matter and their tremendous variety and complexity of their biology (Krishna and Weesner, 1969). Termites are widely distributed throughout the tropics as well as some temperate regions and achieve their highest diversities and abundance in the rainforests of Africa, South America and Southeast Asia (Collins, 1988; Bignell and Eggleton, 1998). In Borneo, Thapa (1981) listed 104 species from Sabah. There has been no major study of termites in Sarawak apart from the study of termite's fauna of Gunung Mulu National Park by Collin (1984),

The main aim of our study was to clarify the termite fauna in Sarawak. In this study, we have surveyed the termite fauna for two years at Lambir Hills National Park from early 2004 until 2005. Termites were collected mainly by random sampling. Mounds, nests, leaf liter, dead or rotten woods and soil were observed. Photos of the nest were taken when necessary. Termite samples were preserved with 80% alcohol. Termites were identified according to the morphological characters using binocular. After the identification, we classified all termites into three functional groups according to their decomposition ability: wood-feeder, fungus-feeder and soil-feeder.

About 60 species belong to 27 genera from three families of termites were recorded during the study. Among the three families, Termitidae was the best represented from the park. The results indicate a very high diversity within the park itself. The results were lower compared to the study by Collin (1984) who listed 77 species from Gunung Mulu National Park. Results also show most of the species nested in wood on the soil. Epigeal mound nesting species were much less compared to the wood on the soil nesting. Arboreal-nesting and subterranean termites contributed the least number of species.

In this study, we also discuss the composition of functional groups in regard to their decomposition abilities.

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