

DIVERSITY AND DOMINANCE OF INSECTS THAT ASSOCIATED
WITH *Dillenia suffruticosa* (Griff.) Martelli
IN UITM SABAH FOREST

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ABSTRACT

DIVERSITY AND DOMINANCE OF INSECTS THAT ASSOCIATED WITH *Dillenia suffruticosa* (Griff.) Martelli IN UiTM SABAH FOREST

The aims of this study were to determine the diversity and dominance of insects that associated with this plant. The samplings were carried out at three zones of the forest and the collected insects were brought to the Makmal Entomologi, Kompleks Makmal Sains dan Agroteknologi (KOMSAT), UiTM Sabah so that they can be preserved and identified. The insects were identified up till order. The results of this study showed that 10 orders of insects consist of 1056 individuals were recorded associated with *Dillenia suffruticosa*. The orders of insects were Blattodea, Coleoptera, Diptera, Hemiptera, Hymenoptera, Lepidoptera, Mantodea, Odonata, Orthoptera and Phasmatodea. The insects' diversity was calculated by using Shannon-Wiener index while dominance was calculated by using Simpson's index. The value of diversity of insects that associated with *Dillenia suffruticosa* in UiTM Sabah forest is 0.4031 and the value of dominance of insects that associated with *Dillenia suffruticosa* in UiTM Sabah forest is 0.8555.

CHAPTER 1

INTRODUCTION

1.1 Background Study

Universiti Teknologi MARA (UiTM) Sabah is one of UiTM's branch campuses. This campus is located at Menggatal, Kota Kinabalu, Sabah. Sabah, along with the Malaysia's states of Sarawak and Wilayah Persekutuan Labuan, Brunei and, Kalimantan, Indonesia, made up the island of Borneo. The state of Sabah covers the area of 72500 sq. kilometres which makes it the second largest state in Malaysia after Sarawak. The island of Borneo is part of Sundaland, which is one of the four large bioregions of Southeast Asia and one of the 25 worldwide biodiversity hotspots for conservation priorities.

The forest of UiTM Sabah is located at longitude and latitude N6°04'15" – N6°03'45" and E116°08'21" – E116°07'51". This location is situated on the coastal ridge of the city of Kota Kinabalu that continues from Bukit Bendera, the forest of University Malaysia Sabah (UMS) until to the forest of the hill of Karambunai. Based on previous study of the plants profile in the forest of UiTM Sabah by Abdul Manap *et al.* (2006), 49 families, 120 genera and 152 species of plants were recorded. One of the species of