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PREPONDERANCE OF BELIAN MELAGANGAY (*POTOXYLON MELAGANGAY*) (SYM.) KOSTERM. AT MULU NATIONAL PARK, MIRI, SARAWAK

I.B. Ipor, C.S. Tawan, J. Lai & B.L. Dichau

ABSTRACT

Study on the population patterns and spatial distribution of Belian Melagangay (*Potoxylon melagangay*) was conducted at Ly Camp 5, Mulu National Park, Miri, Sarawak. A plot of one ha and divided into 25 subplots of 20 m x 20 m to determine the floristic structure and composition of the virgin belian forest. A total of 469 individual trees with diameter breast height (DBH) ≥ 5.0 cm belonged to 117 species from 35 families were recorded. *P. melagangay* comprised of 36 individuals/ha with 25 trees with the DBH of more than 40 cm. *P. melagangay* has the estimated above ground biomass of 123 ton/ha (33.2%), basal area 114537.7 m²/ha (32.3%) and leaf area index of 10257.7 cm²/ha (27.6%). *Glycosmis chlorosperma* seemed to dominate this forest with the highest importance value of IV= 20.72.

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INTRODUCTION

Potoxylon melagangay Sym. (Lauraceae) is formerly referred as *Eusideroxylon zwageri* Teijsm. & Binnend. It is locally known as Malagangai (Brunei), Legangai (Dusun), Tebelian Kebuau, Belian Kapok, Belian Kebuau (Iban) and Belian Melagangai (Dayak) (Teo, 1998). Its timber is highly preferred by the industries and local people for constructing building, electricity poles, boat construction, house poles, poles for black pepper cultivation, fencing and bridge construction due to its hard wood properties and durability. It is an alternative to belian batu (*E. zwageri*) (Teo, 1998 and Burgess, 1966).

P. melagangay is endemic to Borneo (Teo, 1988) and occurred abundantly in Limbang, Lawas, Baram, Miri and Bintulu (Browne, 1955). It occurred mostly in mixed dipterocarp forest, in sandy alluvial along the upper reach of riverbank and at the foothill limestone below 300 m above sea level.

MATERIALS AND METHODS

A hectare plot (comprised of twenty five sub-plots of 20 m x 20 m) was established at Camp 5, Mulu National Park, Miri (latitude: $3^{\circ} 55' N$ and longitude: $114^{\circ} 48' E$) as shown in Fig. 1. All plants with their diameter at breast height (dbh) of ≥ 2.5 cm were enumerated. Plant specimens were collected for identification. The

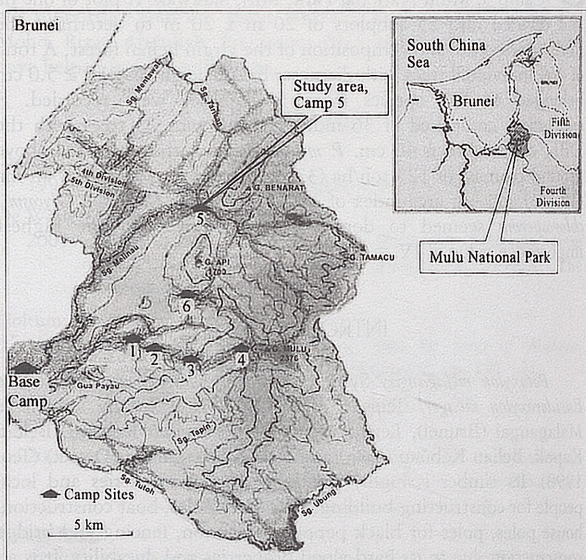


Fig. 1: Study site at Camp 5, Mulu National Park, Miri, Sarawak.