

DIVERSITY, ABUNDANCE AND DISTRIBUTION OF PALM  
OF SUNGAI BAKU FOREST RESERVE AND  
SEMANGU RECREATIONAL FOREST

ANALISIS KEBERKAYAAN BENTUK DAN SEBARAN

FAKULTI SAINS DAN TEKNOLOGI  
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Forest Reserve and Sekayu Recreational Forest / Amal Najihah  
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DIVERSITY, ABUNDANCE AND DISTRIBUTION ON PALMAE OF BUKIT BAUK  
FOREST RESERVE, DUNGUN AND SEKAYU RECREATIONAL  
FOREST, TERENGGANU

By

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## LIST OF ABBREVIATIONS

cm	-	Centimeter
E	-	East
E	-	Species evenness
H'	-	Species diversity
Ha	-	Hectar
m	-	Meter
mm	-	Millimeter
m <sup>2</sup>	-	Meter square
No	-	Number
N	-	North
R1	-	Species richness
%	-	Percent
<sup>0</sup> C	-	Celsius

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## ABSTRACT

This study was conducted at Bukit Bauk Forest Reserve and Sekayu Recreational Forest to determine the diversity, abundance and distribution of Palmae and to relate the species existence in both locations with environmental factor. The data were recorded in plot 20 x 50 m<sup>2</sup> at the lower (148 m) and upper (345 m) elevations in Bukit Bauk Forest Reserve and at the lower (101 m) and upper (290 m) elevations in Sekayu Recreational Forest. The physical parameters such as light intensity, air humidity and soil humidity at those areas were also measured. A total of 448 individuals out of 15 species of Palmae were recorded in both locations. There were 10 species with 250 individuals were recorded in Bukit Bauk Forest Reserve while in Sekayu Recreational Forest, a total of species recorded was eight with 198 individuals. *Licuala glabra* and *Livistona endauensis* were found abundance in Bukit Bauk Forest Reserve while in Sekayu Recreational Forest, *Pinanga disticha* and *Arenga* spp. was the most abundance species. Compared to Sekayu Recreational Forest, Bukit Bauk Forest Reserve has the high diversity and species richness of Palmae because of this area has less disturbances. The factors of environmental conditions influence Palmae diversity and distribution where species found in lower elevation were higher than upper elevation. Lower elevation in Bukit Bauk Forest Reserve and Sekayu Recreational Forest has a good growth potential for Palmae species where Palmae growth affected by moist climates, high air and soil humidity.

**KEPELBAGAIAN, KELIMPAHAN DAN TABURAN SPECIES PALMA DI  
HUTAN SIMPAN BUKIT BAUK, DUNGUN DAN HUTAN REKREASI  
SEKAYU, TERENGGANU**

**ABSTRAK**

Kajian ini telah dijalankan di Hutan Simpan Bukit Bauk dan Hutan Rekreasi Sekayu untuk memastikan kepelbagaian, kelimpahan dan taburan *Palmae* dan untuk mengaitkan kewujudan spesis di kedua-dua kawasan dengan faktor alam sekitar. Data telah direkod dalam plot 20 x 50 m<sup>2</sup> di ketinggian bawah (148 m) dan atas (345 m) di Hutan Simpan Bukit Bauk dan di ketinggian bawah (101 m) dan atas (290 m) di Hutan Rekreasi Sekayu. Fizikal parameter seperti keamatan cahaya, kelembapan udara dan tanah telah diambil di kawasan berkenaan. Sejumlah 448 individu daripada 15 spesis *Palmae* telah direkod di kedua-dua kawasan. 10 spesis dengan 250 individu telah direkodkan di Hutan Simpan Bukit Bauk manakala di Hutan Rekreasi Sekayu, jumlah spesis yang dijumpai adalah lapan spesis dengan 198 individu. *Licuala glabra* dan *Livistona endauensis* telah mendominasi Hutan Simpan Bukit Bauk manakala di Hutan Rekreasi Sekayu, *Pinanga disticha* dan *Arenga* spp. adalah spesis yang paling dominan. Dibandingkan dengan Hutan Rekreasi Sekayu, Hutan Simpan Bukit Bauk mempunyai ketinggian kepelbagaian dan kekayaan spesis *Palmae* kerana kawasan ini kurang gangguan. Faktor keadaan alam sekitar mempengaruhi kepelbagaian dan taburan *Palmae* dimana spesis yang dijumpai di ketinggian bawah lebih tinggi daripada ketinggian atas. Ketinggian bawah di Hutan Simpan Bukit Bauk dan Hutan Rekreasi Sekayu mempunyai potensi pertumbuhan yang baik untuk spesis *Palmae* dimana pertumbuhan *Palmae* disebabkan oleh iklim yang lembap, kelembapan udara dan tanah yang tinggi.