

A STUDY ON SPECIES COMPOSITION AND STAND STRUCTURE OF
MANGROVE FOREST AT EASTERN OF PULAU BESAR IN
MERANG, TERENGGANU

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FACULTY OF MARITIME STUDIES AND MARINE SCIENCE
UNIVERSITI MALAYSIA TERENGGANU

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MANGROVE FOREST AT EASTERN OF PULAU BESAR IN MERANG,
TERENGGANU**

By

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**Research Report submitted in partial fulfillment of
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DEPARTMENT OF MARINE SCIENCE
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DECLARATION AND VERIFICATION REPORT
FINAL YEAR RESEARCH PROJECT

It is hereby declared and verified that this research report entitled:

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LIST OF ABBREVIATIONS/ SYMBOLS

cm	Centimetre
DBH	Diameter Breast Height
DGPS	Digital Global Positioning System
E	East
ha	Hectare
km	Kilometre
m	Metre
MDS	Multi-dimensional Scaling
N	North
No	Number
Sap	Sapling
Seed	Seedling
Sq	Square
π	3.142
°	Degree
%	Percentage

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ABSTRACT

A study was carried out to determine species composition and stand structure on mangrove forest at Eastern of Pulau Besar in Merang, Terengganu. By using forest inventory method, 2 transect and 80 plots were established in Eastern of Pulau Besar. There are 26 species composition found which class into mangrove and non-mangrove species. There are 5 mangrove species and 21 non-mangrove species found at Eastern of Pulau Besar. Mangrove species found at Eastern of Pulau Besar contains 4 species of exclusive mangrove and 1 non-exclusive mangrove. The mangroves species found belong to 4 families which are Avicenniaceae, Euphorbiaceae, Rhizophoraceae and Malvaceae. The stand structure in Eastern of Pulau Besar mainly dominated by regeneration stand and there are no old stand found. The density of *Bruguiera cylindrica* seedlings was the highest, while the highest dominance was *Acacia auriculiformis* tree and the species that has highest frequency and importance value was *Melaleuca leucadendron* tree.

Kajian Komposisi Spesis Dan Struktur Dirian Hutan Paya Bakau Di Timur Pulau Besar Di Merang, Terengganu

ABSTRAK

Kajian ini telah dijalankan untuk menentukan komposisi spesis dan struktur dirian hutan paya bakau di Timur Pulau Besar, Merang, Terengganu. Kaedah inventori digunakan dalam kajian ini. Terdapat 2 transet yang merangkumi 80 plot dibina di hutan paya bakau di Timur Pulau Besar, Merang, Terengganu. Terdapat 26 komposisi spesis dijumpai yang mana dikelaskan kepada 5 spesis hutan paya bakau dan 21 spesis hutan bukan paya bakau. Walaubagaimanapun, terdapat 4 spesis eksklusif dan 1 spesis bukan eksklusif spesis hutan paya bakau direkodkan. Spesis hutan paya bakau yang terdapat di Timur Pulau Besar, Merang, Terengganu terdiri dari keluarga Avicenniaceae, Euphorbiaceae, Rhizophoraceae dan Malvaceae. Di samping itu, dari aspek struktur dirian pula, didominasi oleh dirian peringkat pemulihan semula dan masih tiada struktur dirian pokok yang tua. Di hutan paya bakau di Timur Pulau Besar, Merang mempunyai ketumpatan anak benih *Bruguiera cylindrica* yang tinggi, didominasi oleh pokok spesis *Acacia auriculiformis* dan pokok *Melaleuca leucadendron* mempunyai nilai frekuensi yang tertinggi dan nilai kepentingan yang paling tinggi di kawasan kajian.