

STUDY OF STAM STRUCTURE AND SPECIES COMPOSITION
OF MANGROVE FOREST AT PULAU BUKIT AND PULAU
KEMAMUNG, BENTENG, BANGKALAN, BANGKALAN

DIJADIKAN BUKU KOLEKSI

UNIVERSITAS BANGKALAN

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1100036880
Study on stand structure and species composition of mangrove forest at Pulau Busung and Pulau Tok Haji in Setiu lagoon, Terengganu / Wan Fatimah Wan Mustafa.

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STUDY OF STAND STRUCTURE AND SPECIES COMPOSITION OF MANGROVE
FOREST AT PULAU BUSUNG AND PULAU TOK HAJI IN SETIU LAGOON,
TERENGGANU

By

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Research Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Applied Science (Biodiversity Conservation and Management)

Department of Biological Sciences
Faculty of Science and Technology
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
2005

This project should be cited as:

Wan Fatimah, W.M. 2005. Study of stand structure and species composition of mangrove forest at Pulau Busung and Pulau Tok Haji in Setiu Lagoon, Terengganu. Undergraduate thesis, Bachelor of Applied Science in Biodiversity Conservation and Management, Faculty of Science and Technology, Kolej Universiti Sains dan Teknologi Malaysia, Terengganu. 85p.

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PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: STUDY OF STAND STRUCTURE AND SPECIES COMPOSITION OF MANGROVE FOREST AT PULAU BUSUNG AND PULAU TOK HAJI IN SETIU LAGOON, TERENGGANU oleh WAN FATIHAH BINTI WAN MUSTAFFA, no. matrik: UK 6813 telah diperiksa dan semua pembedaan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh ijazah SAINS GUNAAN (PEMULIHARAAN DAN PENGURUSAN BIODIVERSITI), Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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ACKNOWLEDGMENT

Praise is to Allah SWT by whose grace and blessing I receive guidance in completing this study. First of all, I wish to convey my deepest appreciation and sincere thanks to my supervisor, Assoc. Prof. Sulong Bin Ibrahim for his guidance, generous advice and criticisms throughout this study. I would also wish to express my sincere gratitude to Mr Kasawani Ibrahim as my co-supervisor for his invaluable guidance and advice during writing this thesis.

I would also wish to express my indebtedness to the MARU (Mangrove Research Unit) team especially Mr Razali Salam who had helped me to identify the species of mangroves and for his invaluable guidance, patience and assistance. Without his guidance, this project might not been complete successfully. My appreciation also goes to Mr Habir Alias and Mr Yunus who had helping me during sampling time.

Sincere thanks also dedicated to all my friends who had advice and motivate me throughout this project. Finally, my deepest gratitude goes to my family especially my mother, Robiah Bt. Awang, my father, Wan Mustaffa Bin Wan Draman, and to all my family for their support and encouragement.

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LIST OF SYMBOLS/ABBREVIATIONS

DBH	Diameter Breast Height
No	Number
Sap	Sapling
Seed	Seedling
°C	Celsius
Ha	Hectare

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ABSTRACT

A study was carried out to determine stand structure and species composition of mangrove vegetation at Pulau Busung and Pulau Tok Haji in Setiu lagoon, Terengganu. Using forest inventory method, seven transects which include 46 plots were established in these two islands. The stand structure and species composition of mangrove forest at Pulau Busung and Pulau Tok Haji was reassessed. There are 9 species of exclusive mangrove species that found in Pulau Busung mangrove forest belonging to six families: Rhizophoraceae, Avicenniaceae, Meliaceae, Euphorbiaceae, Sterculiaceae and Palmae. Meanwhile, at Pulau Tok Haji 36 species are found, of which are 27 considered principal or exclusive mangrove species while the others are non-exclusive species. Community structure analysis carried out at Pulau Busung showed that the relative density, relative frequency, relative dominance and importance value of *Rhizophora apiculata* was relatively higher than for the other species. Meanwhile, community structure analysis at Pulau Tok Haji indicates that this island dominated by *Excoecaria agallocha* species whose relative density, relative frequency, relative dominance and importance value were 0.231 %, 5.70 %, 21.93% and 27.861 respectively.

**KAJIAN STRUKTUR DIRIAN DAN KOMPOSISI SPESIES HUTAN PAYA
BAKAU DI PULAU BUSUNG DAN PULAU TOK HAJI DI SETIU
LAGUN,TERENGGANU**

ABSTRAK

Kajian ini telah dijalankan untuk menentukan struktur dirian dan komposisi spesies hutan paya bakau di Pulau Busung dan Pulau Tok Haji di Setiu lagun, Terengganu. Kaedah inventori digunakan dengan membina tujuh transek yang mengandungi 46 plot merangkumi kedua-dua pulau. Struktur dirian dan komposisi spesies hutan paya bakau di Pulau Busung dan Pulau Tok Haji dapat ditaksirkan. Pulau Busung mengandungi 9 species eksklusif bakau, yang mana tergolong di dalam 6 Famili iaitu Famili Rhizophoraceae, Avicenniaceae, Meliaceae, Euphorbiaceae, Sterculiaceae and Palmae. Manakala, di Pulau Tok Haji 36 spesies bakau dijumpai, yang mana 27 spesies dikategorikan sebagai eksklusif bakau dan yang selebihnya adalah spesies bakau bukan eksklusif. Analisis struktur komuniti di Pulau Busung menunjukkan taburan relatif, frekuensi relatif, dominan relatif dan 'importance value' bagi spesies *Rhizophora apiculata* adalah yang paling tinggi jika dibandingkan dengan spesies lain. Manakala di Pulau Tok Haji analisis struktur komuniti menunjukkan pulau ini didominasi oleh spesies *Excoecaria agallocha* yang mana nilai taburan relatif adalah 0.231%, frekuensi relatif adalah 5.70%, dominan relatif adalah 21.93% dan 'importance value' adalah 27.861.