

STUDY OF PLANT STRUCTURE AND SPECIES COMPOSITION
OF SHORELAND AND MANGROVE WOODLAND IN GREAT WETLAND

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**STUDY OF STAND STRUCTURE AND SPECIES COMPOSITION AT SUTUNG
AND GEMIA ISLAND IN SETIU WETLAND**

By

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ABSTRACT

This study was conducted to survey and gain information about mangroves forest in Sutung and Gemia Island. Overall, six transect with 20 plot in Sutung Island and four transect with 13 plot in Gemia Island have been built. Classification and feature of the trees such as species, height, crown form and type of stem were recorded. Then, determination of mangrove species was decided according to species existence, number of individual and percent cover in plot. Univariate analysis was performed using the PC – ORD statistical package version 3.0. From this statistical program we can get useful information of species such as species evenness, species diversity and also species richness. According to diversity index data, *Nypa fruticans* shows the highest species diversity (2.732 and 2.147) in both islands. Meanwhile, *Ceriops decandra* shows the highest species richness in both island for saplings and seedlings. In overall, there are 20 species of plant in Sutung Island and 10 species of plant in Gemia Island that have been found along transect. These species have been categorized into trees, saplings and seedlings.

Kajian tentang struktur dirian dan komposisi spesis di Pulau Sutung dan Gemia di kawasan Setiu

ABSTRAK

Kajian ini dijalankan untuk meninjau dan menimba maklumat tentang hutan paya bakau di Pulau Sutung dan Gemia. Secara keseluruhan, enam transek dengan 20 plot di Pulau Sutung dan empat transek dengan 13 plot di Pulau Gemia telah dibina. Klasifikasi serta ciri-ciri pokok seperti spesis pokok, tinggi, bentuk silara dan jenis batang direkodkan. Selepas itu, penentuan spesis bakau ditentukan melalui kaedah kewujudan spesis, bilangan individu dan peratus litupan dalam plot. Analisis “univariate” turut dijalankan dengan menggunakan perisian statistik PC – ORD versi 3.0. Melalui program statistik ini, kita boleh mendapatkan maklumat tentang sesuatu spesis dari segi kesamaan spesis, kekayaan spesis dan kepelbagaian spesis. Berdasarkan data indeks kepelbagaian, *Nypa fruticans* mempunyai kepelbagaian spesis yang tertinggi di kedua-dua pulau (2.732 dan 2.147). Manakala *Ceriops decandra* mempunyai kekayaan spesis yang tertinggi di kedua-dua pulau untuk anak pokok dan dan anak benih. Keseluruhannya terdapat 20 spesis tumbuhan di Pulau Sutung dan 10 spesis tumbuhan di Pulau Gemia telah dijumpai di sepanjang transek. Spesis tersebut telah dikategorikan kepada pokok, anak pokok dan anak benih.