

DIVERSITY AND SPECIES OF FORAMINIFERA IN PULAU TUJUH,  
DELTA TUMPAT, KELANTAN

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## Diversity and species of foraminifera in Pulau Tujuh, Delta Tumpat, Kelantan / Khairul Azwan Mohamad.



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**DIVERSITY AND SPECIES OF FORAMINIFERA IN PULAU TUJUH,  
DELTA TUMPAT, KELANTAN**

**By  
Khairul Azwan bin Mohamad**

**Research Report submitted in partial fulfillment of  
The requirements for the degree of  
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**PENGAKUAN DAN PENGESAHAN  
LAPORAN PROJEK PENYELIDIKAN I DAN II**

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**Diversity and Species of Foraminifera in Pulau Tujuh, Delta Tumpat, Kelantan** oleh **Khairul Azwan bin Mohamad**, No. Matrik: UK 9657 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Marin sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains (Sains Samudera), Fakulti Pengajian Maritim dan Sains Marin, Universiti Malaysia Terengganu.

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## LIST OF ABBREVIATIONS / SYMBOLS

$\Phi$	phi
%	percentage
$^{\circ}\text{C}$	degree Celcius
l	liter
ml	mililiter
$\mu\text{m}$	micrometer
cm	centimeter
mm	milimeter
m	meter
g	gram
>	more than
<	less than
$\text{K}_2\text{Cr}_4\text{O}_7$	chromic acid
$\text{Fe}_2\text{SO}_4 \cdot 7\text{H}_2\text{O}$	ferum (II) sulphate
$\text{H}_2\text{SO}_4$	sulfuric acid
$\text{H}_2\text{O}_2$	hydrogen peroxide
S	number of species
H'	Shannon – Wiener's diversity index
E	evenness

## ABSTRACT

### Diversity and Species of Foraminifera in Pulau Tujuh, Delta Tumpat, Kelantan

By selecting a study area in Delta Tumpat, Kelantan namely Pulau Tujuh, a study on the diversity and species of foraminifera was conducted in September 2006. The study aimed at describing the available species of foraminifera in the mangrove area and the species abundance at the study area. The sediments were collected along the transect lines which consists of 15 points altogether. After the sediments were washed through the sieves, identification of foraminifera species was done using the binocular microscope at 4 – 40x magnification and the taxonomic process was referred to Cushman (1948). From the statistical analysis, *Trochammina inflata* was found to be the most abundant species at the study area. The least abundant species was *Planulina exorna* and other species observed at the study area were the *Trochammina macrescens*, *Tiphotrecha comprimata*, *Haplophragmoides wilberti* and *Ammonia beccarii*.

## **ABSTRAK**

### **Kajian Diversiti dan Spesis Foraminifera di Pulau Tujuh, Delta Tumpat,**

### **Kelantan**

Dengan memilih sebuah kawasan kajian di Delta Tumpat, Kelantan iaitu Pulau Tujuh, kajian diversiti dan spesis foraminifera telah dilakukan pada bulan September 2006. Kajian ini bertujuan untuk mendedahkan spesis foraminifera yang terdapat di kawasan hutan paya laut dan juga untuk mengetahui kelimpahan spesis di kawasan kajian tersebut. Pada mulanya, sampel sedimen diambil sepanjang transek yang meliputi 15 stesen kesemuanya. Setelah sedimen dibasuh melalui penapis, analisis pengenalpastian foraminifera dilakukan menggunakan mikroskop pada 4 – 40x pembesaran dan proses taksonomi dilakukan dengan merujuk kepada Cushman (1948). Dari analisis statistik, *Trochammina inflata* adalah merupakan spesis yang paling banyak dijumpai di kawasan kajian. Spesis yang paling sedikit ditemui ialah *Planulina exorna* manakala lain-lain spesis yang ditemui di kawasan kajian ialah *Trochammina macrescens*, *Tiphotrecha comprimata*, *Haplophragmoides wilberti* dan *Ammonia beccarii*.