

ZOOPLANKTON IN MANGROVES OF SETU

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## Zooplankton in mangroves of Setiu / Kamarul Anuar Duli.



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## ZOOPLANKTON IN MANGROVES OF SETIU

By

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PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: Zooplankton In Mangrove Of Setiu oleh Kamarul Anuar bin Duli No. Matrik UK6765, telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains-Sains Biologi Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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## **LIST OF SYMBOL**

|             |                   |
|-------------|-------------------|
| $m^3$       | cubic meter       |
| %           | percent           |
| Ppt         | part per thousand |
| $^{\circ}C$ | degree Celsius    |
| DO          | dissolved oxygen  |

## **ABSTRACT**

The aims of the study are to determine the species composition and mean density of zooplankton in the mangroves of Setiu. The field sampling processes was done in June and July 2004 in eight selected area by using Kitahara Net. At least, there are 12 zooplankton groups were found in this study includes Calanoid, Cyclopoid, Harpaticoid, Naplius and Polychaete larvae. Both sampling session shows same shape species composition. The density was higher during the first sampling session with total of zooplankton  $718602 \text{ ind.m}^{-3}$  than the second sampling ( $257480 \text{ ind.m}^{-3}$ ). Che Him Island showed highest density of zooplankton with  $268533 \text{ ind.m}^{-3}$  and the lowest density was Gemia Island with  $13360 \text{ ind.m}^{-3}$ . The highest diversity of zooplankton was found in Gemia Island.

## **ZOOPLANKTON DI KAWASAN PAYA LAUT SETIU**

### **ABSTRAK**

Tujuan utama kajian ini adalah untuk menentukan komposisi kumpulan dan min kepadatan zooplankton di kawasan paya laut di Setiu. Proses penyempelan dilakukan pada bulan Jun dan Julai 2004 di 8 buah pilihan stesen menggunakan Kitahara Net. Sekurang-kurangnya, terdapat 12 kumpulan zooplankton yang hadir dalam kawasan kajian. Kumpulan yang dominan ialah *calanoid*, *cyclopoid*, *harpacticoid*, *naplius* and *polychaeta larva*. Kedua-dua penyampelan menunjukkan corak komposisi kumpulan zooplankton yang sama manakala untuk min kepadatan, penyampelan pertama menunjukkan kepadatan yang lebih tinggi dengan jumlah semua  $718602 \text{ ind/m}^3$  daripada penyampelan kedua dengan  $257480 \text{ ind/m}^3$  zooplankton. Pulau Che Him mencatatkan kepadatan paling tinggi untuk penyampelan pertama iaitu dengan  $268533 \text{ ind/m}^3$  dan Pulau Gemia mencatatkan kepadatan paling rendah dengan  $13360 \text{ ind/m}^3$  untuk penyampelan kedua. Kepelbagaian zooplankton paling tinggi terdapat di Pulau Gemia.