

COMPARISON OF ZOOPLANKTON ABUNDANCE AND SIZE  
COMPOSITION AT REEF AND OPEN WATER HABITATS OF  
BIDONG ISLAND, TERANGGANU

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AT REEF AND OPEN WATER HABITATS OF BIDONG ISLAND,  
TERENGGANU

By

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Research report submitted in partial fulfillment of

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**DEPARTMENT OF MARINE SCIENCE  
FACULTY OF MARITIME STUDIES AND MARINE SCIENCE  
UNIVERSITI MALAYSIA TERENGGANU**

**DECLARATION AND VERIFICATION REPORT  
FINAL YEAR RESEARCH PROJECT**

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

COMPARISON OF ZOOPLAKTON ABUNDANCE AND SIZE COMPOSITION AT REEF AND OPEN WATER HABITATS OF BIDONG ISLAND, TERENGGANU by Rajasegar A/L Maruthamuthu Nadarajah, Matric No. UK 22425, have been examined and all errors identified have been corrected. This report is submitted to the Department of Marine Science as partial fulfillment towards obtaining the Degree of Bachelor of Science (Marine Biology) Faculty of Maritime Studies and Marine Science, University Malaysia Terengganu.

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## ABSTRACT

A study to compare the abundance of zooplankton between the reef habitat and open water habitat using horizontal and vertical towing and 100 $\mu$ m and 250 $\mu$ m size fraction was carried out. The samples were collected from reef habitat, mid water and lastly at the open water of Bidong Island, Terengganu. Generally, the vertical abundance of zooplankton increased from reef habitat (coastal) towards the open water habitat. On the other hand, the horizontal abundance decreases from reef habitat to open water. The vertical abundance of zooplankton was higher than the horizontal abundance. 100 $\mu$ m size fractions give rise to the zooplankton abundance in vertical abundance. No much variation was found in horizontal abundance in the both size fractions. Copepods were the major zooplankton group in all stations.

## **Kajian Tentang Perbezaan Kepadatan Zooplankton Dan Struktur Komuniti**

### **Zooplankton Di Habitat Batu Karang Dan Habitat Laut Terbuka**

#### **ABSTRAK**

Kajian ini menggambarkan perbezaan kepadatan zooplankton di kawasan batu karang dan laut terbuka. Zooplankton telah ditapis dari 3 kawasan, iaitu kawasan batu karang, kawasan pertengahan laut dan akhirnya di kawasan laut terbuka dengan menggunakan jarring yang bersaiz 100 $\mu$ m dan 250 $\mu$ m dengan cara penapisan secara mendatar dan menegak. Secara keseluruhannya komposisi zooplankton banyak diwakili oleh kopepod dan zooplankton lain mempunyai kepadatan yang kurang berbanding dengan kopepod di kesemua stesen. Kepadatan zooplankton secara menegak banyak di kawasan laut terbuka dan sedikit di kawasan batu karang. Kepadatan zooplankton secara mendatar pula banyak di kawasan batu karang berbanding laut terbuka. Dalam zooplankton yang ditapis secara menegak, kebanyakannya adalah bersaiz 100 $\mu$ m. Zooplankton yang ditapis mendatar pula tidak menunjukkan perbezaan yang begitu ketara seperti yang ditunjukkan dalam saiz 100 $\mu$ m.