

ZOOPLANKTON DIVERSITY IN TELUK KALONG,  
KEMAMAN

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2013

TY OF MARITIME STUDIES AND MARINE SCIENCE  
UNIVERSITI MALAYSIA TERENGGANU

2013



**Zooplankton Diversity In Teluk Kalong, Kemaman**

**By**

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**This project report is submitted in partial fulfilment of  
the requirement for the Degree of  
Bachelor of Marine Biology**

**Faculty of Maritime Studies and Marine Science  
Universiti Malaysia Terengganu  
2012**



**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:

Looplonkton Diversity In Teluk Kelang, Kemaman

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## ACKNOWLEDGEMENT

All praised to Allah whose countless blessings have guided me to accomplish this study. First of all, I would like to take this opportunity to express my deepest gratitude and appreciation to my supervisor, Dr. Hing Lee Siang and my second supervisor, Prof. Madya Dr. Siti Aishah Abdullah for their continuous advices, comments, guidance and patience throughout the completion of the project. Not to forget Dr. Teruaki Yoshida from UKM who has been a major guidance for me in completing the analysis.

My thanks also go to all the laboratory assistants and officers, En. Che Mohd Zan Husin, En. Anas Ahmad, Pn. Kartini Mohammad, Cik Mardhiah and En. Azahari for their continuous efforts of providing the students countless efforts to finish the laboratory works.

I also wish to acknowledge my dear friends Abdul Rasyid Kasman, Muhammad Fahmi Umar, Muhammad Fithrie Ozair and every each and one of my course mates for your endless supports, helps and guidance in completing this study.

Last but not least, a very special gratitude I presented to my dear family who has been very supportive and understanding throughout the completion of this study. Thanks a lot for everything.



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## LIST OF ABBREVIATIONS

PMINT	Perbadanan Memajukan Iktisad Negeri Terengganu
LPG	Liquefied Petroleum Gas
(N)	North
(E)	East
D.O	Dissolved oxygen
GPS	Global Positioning System
ml	millilitre
Pi	Proportion
Individuals/m <sup>3</sup>	Individuals per meter cube
Sp.	Species
Ppt	Parts per thousand
Mg/L	Milligram per litre
n.d	No date
µm	Micrometer
%	Percentage
°C	Degree celcius

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## ABSTRACT

A study on the diversity of zooplankton in Teluk Kalong, Kemaman was carried out nearby the entrance of the Kemaman Port. Lack of baseline data on the distribution and diversity of zooplankton in Teluk Kalong, Kemaman was the reason this study was carried out. Furthermore, diversity of zooplankton in an area may be affected by the introduction of alien species through ballast water discharge, thus leading to chosen study area which is Teluk Kalong, Kemaman due to Port Kemaman which is located nearby this area. Samples were taken by towing Kitahara Net with mouth diameter of 0.21m and mesh size of 100 $\mu$ m vertically in each 15 randomly picked sampling stations where some stations are near the shore and some are away from the shore. A total of 53 genuses identified from the samples collected. The identification of possible alien species was carried out by referring to previously made databases or researches. Meanwhile, the diverseness of species of zooplankton shows ascending patterns as the station moved towards the open sea.

## ABSTRAK

Satu kajian ke atas kepelbagaian spesis zooplankton di Teluk Kalong, Kemaman telah dijalankan berdekatan laluan masuk kapal di Pelabuhan Kemaman. Kurangnya data asas sebagai rujukan kepada taburan dan kepelbagaian spesis zooplankton di kawasan Teluk Kalong, Kemaman adalah pencetus kajian ini dijalankan. Tambahan pula, pengenalan spesis asing melalui pembuangan air balast diketahui mampu mengubah kepelbagaian spesis telah membawa kepada pemilihan tempat kajian iaitu Teluk Kalong, Kemaman di mana terdapat Pelabuhan Kemaman terletak berdekatan. Sampel telah dikumpul dengan menunda jaring Kitahara dengan ukuran lilit pembukaan mulut sebanyak 0.21m dan saiz jaring berukuran 100 $\mu$ m. Penundaan jaring Kitahara dilakukan secara menegak daripada dasar ke permukaan air secara manual di setiap 15 stesen penyampelan yang dipilih secara rawak di mana sebahagian stesen berdekatan dengan pantai manakala sebahagian adalah jauh dari pantai. Daripada keseluruhan sampel yang telah dikumpul, sebanyak 53 genus telah dikenalpasti. Pengenalpastian kemungkinan spesis asing telah dijalankan dengan merujuk kepada pengkalan data sedia ada dan juga kajian-kajian yang telah dijalankan sebelum ini. Sebanyak 11 genus telah dikenalpasti sebagai bukan spesis asal kepada perairan pantai Timur manakala 3 genus tidak dapat dikenalpasti status asalnya. Secara umumnya, kepadatan zooplankton di kawasan penyampelan menunjukkan corak penurunan daripada kawasan pantai hingga ke laut luas. Sebaliknya, kepelbagaian spesis zooplankton menunjukkan corak peningkatan daripada kawasan pantai hingga ke kawasan laut luas.