

THE UNIVERSITY OF CHICAGO
LIBRARY

CHICAGO, ILL.

THE UNIVERSITY OF CHICAGO
LIBRARY

5/2907
1100042344

Perpustakaan
Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM)

LP 37 FST 4 2006



1100042344

Environmental parameters of Tok Bali Lagoon, Kelantan Darul
Naim / Reza Ivanna Abdullah.



PERPUSTAKAAN
KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA
21030 KUALA TERENGGANU

1100042344

1100042344		

Lihat sebelah

PERPUSTAKAAN KUSTEM

ENVIRONMENTAL PARAMETERS OF TOK BALI LAGOON

KELANTAN DARUL NAIM

By

Reza Ivanna Abdullah

Research Report is submitted in partial fulfillment of
The requirements for the degree of
Bachelor of Science (Marine Science)

Department of Marine Science
Faculty of Science and Technology
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
2006

1100042344

This project should be cited as:

Ivanna, R.A., 2006. Environmental Parameters of Tok Bali Lagoon, Kelantan Darul Naim. Undergraduate thesis, Bachelor of Science in Marine Science, Faculty of Science and Technology, Kolej Universiti Sains dan Teknologi Malaysia. 61p.

No part of this project report may be produced by any material, photographic, or electronic process, or in the form of phonographic recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use, without written permission from the author and the supervisor(s) of the project

ACKNOWLEDGMENTS

Alhamdulillah, thank to The Almighty, the gracious and the most merciful which with His bless: I finally completed my final year project.

First of all, I would like to deliver my heartiest gratitude and deepest appreciation to my honorable supervisors Professor Dr. Mohd Lokman Hussein and especially Mr. Mohd Suffian Idris for his guidance and advice for me to make my work successfully done from the beginning until the end of this study. His guidance is really needed and I am very thankful of that.

Also a lot of special thanks to the Science Officers of Informatics Lab in INOS, Mr. Nasir Mohammad, Mr. Fathy Kameel and Mr. Azri Muhamad for contributing helps and their patience in supporting me during the survey and analysis period. I am very pleased of the help from Mr. Karthik in assisting and teaching me about GIS.

I would like to extend my sincere appreciation to my beloved family, especially Nenek, Abah, Mak, and Pakcik for their unflagging moral and financial support. Not to forget, Mohd Zafarizal Ghazali for his special contributions and sincere kindness.

Finally yet importantly, I would like to thank to all those who have contributed in one way or another to the completion of this project. Last but not least, thank to all my housemates and friends especially Syued and Mamito for their best friendship ever. Friends make memories that the heart preserves. Thank you.

ABSTRACT

A study of environmental parameters is focused on three main aspects which were lagoon boundary mapping, bathymetric mapping and water parameters using DGPS, echosounder and Hydrolab Quanta. A study was conducted at Tok Bali Lagoon area which is situated in Pasir Puteh, Kelantan on July and September 2005. Through GIS analysis, the changes on geomorphologic of Tok Bali Lagoon could be clearly identified. The area for the entire lagoon is 0.86 ha. Results from the study also indicated that this lagoon has shallow water depth with the average of 3-4 meters. This lagoon included with three small islands which were already occupied by some mangrove species. Measurements of water quality are focused on dissolved oxygen (DO) and pH values. Overall, these values were shown no significance differences. Nevertheless, aquaculture activities which were running in study area and several nature's factors such as rainfall and tidal circulation also contributed some influences in effecting that water quality of Tok Bali Lagoon.

ABSTRAK

Kajian parameter alam sekitar merangkumi tiga aspek utama iaitu pemetaan sempadan lagun, analisa kedalaman lagun dan parameter (kualiti) air lagun dengan menggunakan DGPS, pendengar-gema dan Hydrolab Quanta. Kajian telah dilaksanakan di kawasan lagun Tok Bali yang terletak di daerah Pasir Puteh, Kelantan pada Julai dan September 2005. Melalui pemetaan GIS, dapat dilihat perubahan yang berlaku ke atas bentuk muka bumi lagun di mana luasannya lagun pada bahagian mulut semakin berkurang. Keluasan keseluruhan kawasan lagun ialah 0.8 hektar. Keputusan kajian juga mendapati bahawa lagun ini mempunyai kedalaman yang cetek, secara purata hanya 3-4 meter. Lagun ini juga mempunyai tiga pulau kecil yang telah ditumbuhi oleh beberapa spesis tumbuhan paya bakau. Bacaan kualiti air dalam kajian ini memfokuskan kepada nilai oksigen terlarut dan keasidan atau kealkalian air lagun, di mana secara keseluruhannya bacaan-bacaan ini tidak menunjukkan perbezaan yang begitu ketara. Namun demikian, aktiviti akuakultur yang dijalankan di kawasan kajian serta faktor semulajadi seperti cuaca dan kitar pasang surut turut mempengaruhi kualiti air di lagun ini.