





**NITROGEN DISTRIBUTION IN THE WATER OF SUNGAI COMO,  
TASIK KENYIR**

**By  
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**Research report is submitted in partial fulfillment of  
the requirements for the degree of  
Bachelor of Agrotechnology Science ( Aquaculture )**

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Borang Pengakuan dan Pengesahan Laporan Akhir Projek Ilmiah I dan II

BORANG PITA 8



FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN  
UNIVERSITI MALAYSIA TERENGGANU

PENGAKUAN DAN PENGESAHAN LAPORAN  
PROJEK ILMIAH I DAN II

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:

NITROGEN DISTRIBUTION IN THE WATER OF SUNGAI COMO, TASIK KENYIR

oleh, SITI ASMA LIZA BT MD YAKHIM No.Matrik UK13017 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan PERIKANAN DAN AKUAKULTUR sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda AGROTEKNOLOGI AKUAKULTUR, Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

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## DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

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Date : 14 May 2009

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## ABSTRAK

Kajian projek ini tertumpu kepada taburan nitrogen and organik nitrogen semasa monsoon dan bukan monsoon di Tasik kenyer, Terengganu dimana untuk mengkaji kesan season terhadap taburan nitrogen. Kajian sebanyak 2 kali ini dilakukan pada Oktober 2008 dan Desember 2008. Sebanyak 5 station telah dipilih dan sample air telah diambil pada permukaan, pertengahan dan dasar tasik. Pensempelan pertama telah dijalankan pada 23 October 2008. Purata kepekatan ammonia, nitrite, nitrate, jumlah organik nitrogen dan jumlah nitrogen adalah 5.78, 3.08, 14.72, 158.24 dan 181.92 uM . Pensempelan kedua pula telah dijalankan pada 18 December 2008. Purata kepekatan ammonia, nitrite, nitrate, jumlah organik nitrogen dan jumlah nitrogen adalah 9.26, 1.35, 30.08, 21.29 dan 61.98 uM. Kepekatan ammonium dan nitrate tinggi semasa monsoon berbanding bukan monsoon. Manakala, kepekatan nitrite, jumlah nitrogen dan jumlah organik nitrogen rendah semasa bukan monsoon berbanding monsoon. Punca utama nitrogen di Tasik kenyer ialah dari sisa akuakultur.



## ABSTRACT

The distribution of nitrogen and organic nitrogen in Tasik Kenyir, Terengganu was studied during non monsoon and monsoon in order to study the effect of monsoon seasons on the nitrogen distribution in Tasik Kenyir. The sampling stations were visited two times on October and December 2008. Five stations were established and the water samples of these stations were taken at surface, middle and bottom layer. The first sampling were carried out on 23 October 2008. The average of ammonium, nitrite, nitrate, total nitrogen and organic nitrogen were 5.78, 3.08, 14.72, 158.24 and 181.92  $\mu\text{M}$  respectively. The second sampling were conducted on the 18 December 2008. In general the average of ammonium, nitrite, nitrate, total nitrogen and dissolved organic nitrogen were 9.26, 1.35, 30.08, 21.29 and 61.98  $\mu\text{M}$  respectively. The concentration of ammonium and nitrate were higher during monsoon than non monsoon. Whereas nitrite, total nitrogen and dissolved organic nitrogen concentration were lower during monsoon than non monsoon. The major sources of nitrogen in the lake probably derived from aquaculture wastes.