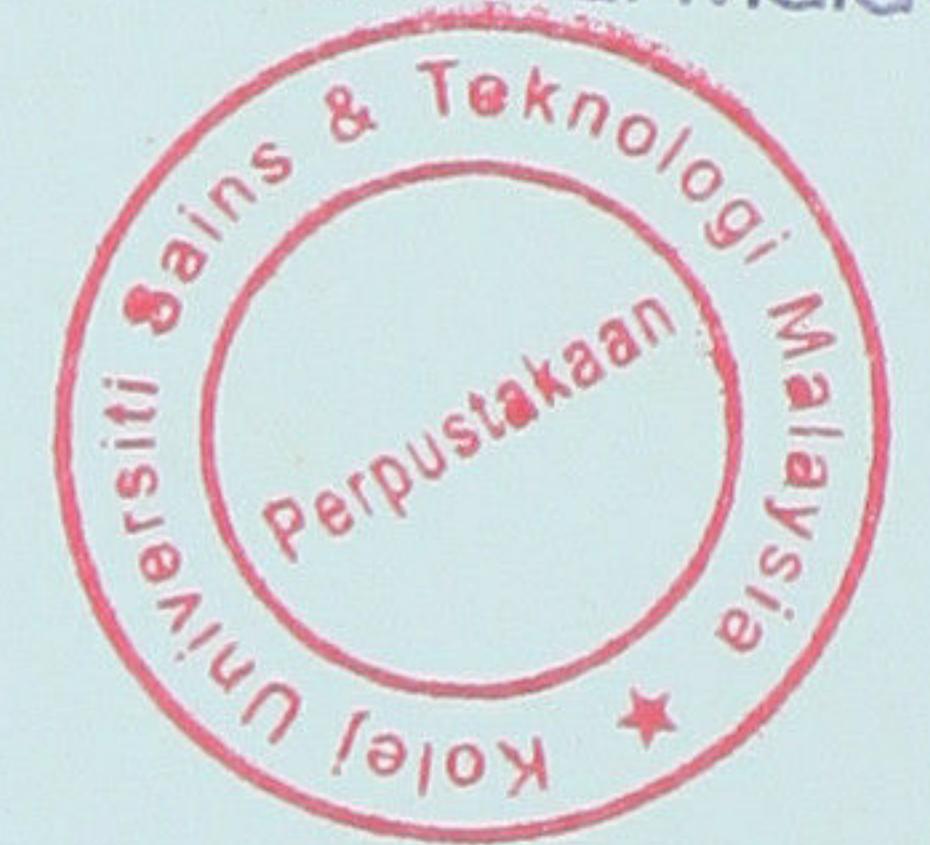


c/n 1566

1100024976

Perpustakaan
Universiti Sains Dan Teknologi Malaysia



Engh

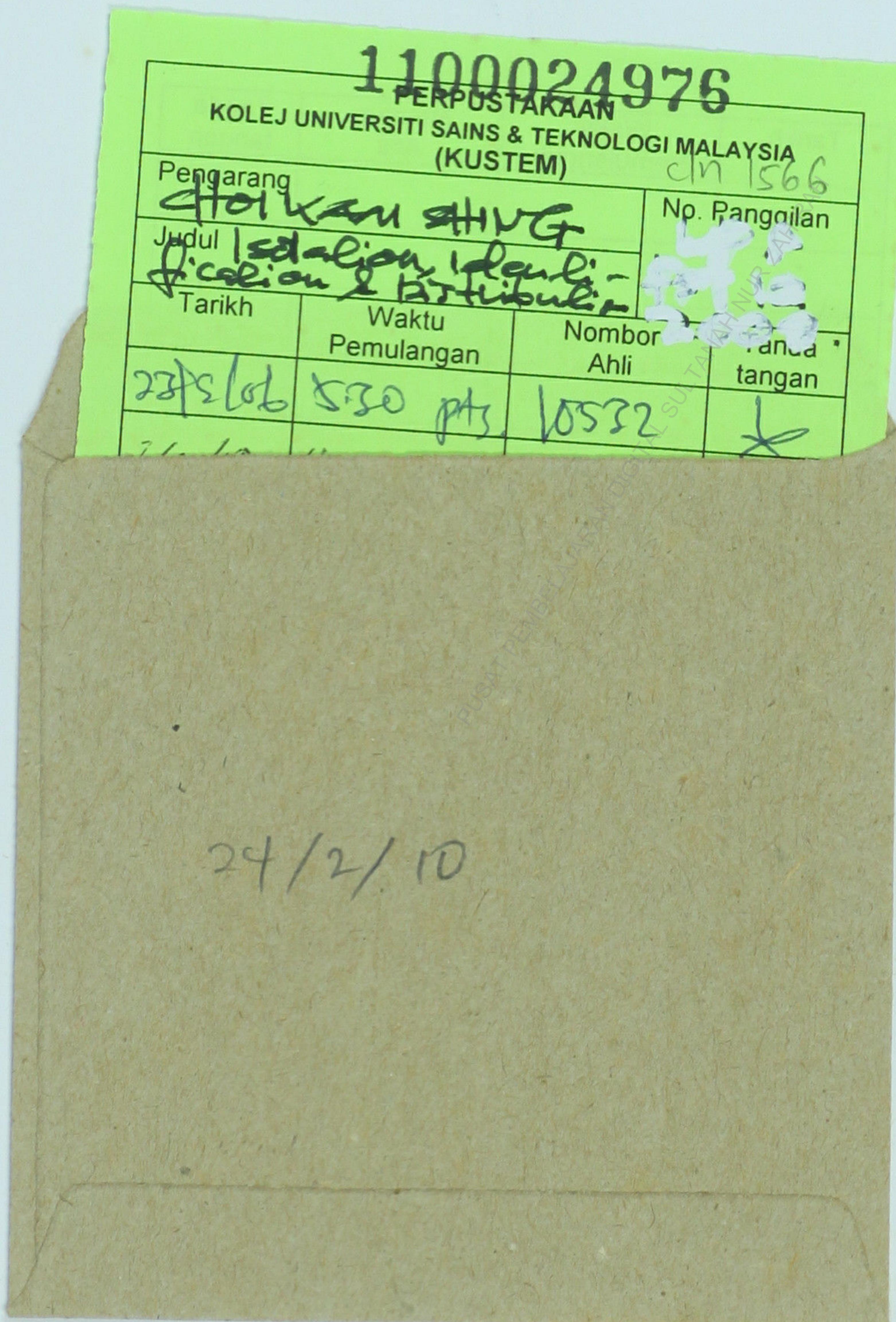
LP 4 FST 1 2003



1100024976

Isolation, identification and distribution of small, free-living amoeba from Setiu Wetland Waters Terengganu : a preliminary study / Choi Kam Shing.

6



**ISOLATION, IDENTIFICATION AND DISRTIBUTION
OF SMALL, FREE-LIVING AMOEBAE FROM SETIU WETLAND WATERS
TERENGGANU : A PRELIMINARY STUDY**

BY :

CHOI KAM SHING

**THIS PROJECT REPORT IS SUBMITTED IN
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
BACHELOR OF APPLIED SCIENCE
(BIODIVERSITY CONSERVATION AND MANAGEMENT)**

**DEPARTMENT OF BIOLOGICAL SCIENCES
FACULTY OF SCIENCE AND TECHNOLOGY
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
KUSTEM
2003**

1100024975

This project should be cited as :

Choi KS. 2003. Isolation, Identification and Distribution of Small, Free-Living Amoebae From Setiu Wetland Waters, Terengganu : A Preliminary Study. Report of Final Year Academic Project, Bachelor of Applied Science Biodiversity Conservation and Management, Faculty of Science and Technology, Kolej Universiti Sains dan Teknologi Malaysia. 61p.

No part of this project report may be produced by any mechanical, photographic, or electronic process, or in the form of photographic 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.

KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

PENGAKUAN DAN PENGESAHAN LAPORAN PENYELIDIKAN ILMIAH TAHUN AKHIR

Adalah ini diakui dan disahkan bahawa laporan penyelidikan ilmiah tahun akhir bertajuk Isolation, Identification and Distribution of Small, Free-Living Amoebae From Setiu Wetland Waters, Terengganu : A Preliminary Study oleh CHOI KAM SHING, no matrik UK 4142 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 Pemuliharaan dan Pengurusan Biodiversiti, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

Disahkan oleh :

Penyelia Utama

Nama : Prof Madya Dr Nakisah Mat Amin
Cop

NAKISAH BT. MAT AMIN (PhD)
Profesor Madya
Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
Mengatang Telipot
21030 Kuala Terengganu.

Tarikh : 6.3.2003

PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHIRAH

Ketua Jabatan Sains Biologi

Nama : Prof Dr Chan Eng Heng

Cop

PROF. DR. CHAN ENG HENG
Ketua
Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu.

Tarikh : 6.3.2003

ACKNOWLEDGEMENTS

First of all, I would like to take this opportunity to thank my family members for their support throughout my three years study in the university both spiritually and financially.

I would like to forward my greatest thank to Assc. Prof. Dr Nakisah Mat Amin as my supervisor that guided me throughout the whole process from the beginning of this project until the end. Beside that, I do appreciate the wise advices that had been given not only during the accomplishment of this project but also during the lecture given in the classes that have been taught.

My thanks also goes to Dr Aziz for his advice especially in handling the format for the thesis. To Kak Sue, Kak Timah, Abang Jas, and Kak Anis and all the staffs of Histology Laboratory, thanks for all the guidance and helps especially when doing the laboratory work. This project would not be completed as scheduled without the extra assistance provided.

Besides, I would like to thank En Sulaiman and the staffs of Oceanography Laboratory for their co-operation and patient in helping me to complete my laboratory works. Not to forget all the staffs that handled the transportation for my project, thank you.

Last but not least, to my friends that worked under the same supervision, Chee Keong, Faezah, Nurul, Maslyana, Mardiana and Zitto, thanks for all the co-operation and supports given during the process of completing the project. And to those whom I did not mention, my special thanks to all of you though the help is just a little drop in the ocean, but the ocean will be less without that little drop. You guys are great !

Before I conclude, I would like to take this opportunity to apologize and seek forgiveness for the wrong that I have done or speak not only during the completion of this project but also during my three years at KUSTEM.

Thank you.
K.S. Choi, 2003

ABSTRAK

Kajian ini dijalankan bertujuan untuk mengasing dan mengecam spesis ameba serta mengkaji taburannya di dalam air Setiu wetland, Terengganu. Sampel permukaan air (lebih kurang 5 – 10 cm dari permukaan) diambil dengan menggunakan botol polietiline yang steril. Pengasingan ameba dilakukan dengan menggunakan kaedah turasan bermembran dan pengecaman species ameba adalah berdasarkan kekunci Page (1988). Sebanyak empat spesis ameba dapat dikenalpasti berdasarkan morfologi sista dan trofozoit iaitu *Acanthamoeba polyphaga*, *Acanthamoeba sp.*, *Vahlkampfia sp.* dan Spesis A. *Acanthamoeba* merupakan spesis yang mempunyai taburan yang luas di dalam kajian ini kerana dijumpai pada semua stesen persampelan. Selain itu, kualiti air juga dikaji kerana ia memainkan peranan yang penting dalam menentukan taburan spesis-spesis ameba. Nilai BOD tertinggi yang diukur adalah 1.90 mg/L dan yang terendah adalah 0.97 mg/L. Nilai TSS yang diperolehi adalah antara 32 – 81 mg/L sementara nilai AN yang diukur berada dalam lingkungan 0.2 – 0.3 ppm. Nilai tertinggi bacaan DO adalah 6.04 mg/L dan yang terendah adalah 5.37 mg/L. Nilai saliniti yang diukur adalah tinggi dengan nilai di antara 30 – 32 ppt. Nilai pH air dan suhu masing-masing adalah pH 7.5 – 7.6 dan 30 – 31°C. Secara umumnya, keputusan kajian menunjukkan bahawa kualiti air di Setiu wetland adalah kurang tercemar dan diklasifikasikan sebagai Kelas II menurut Interim National Water Quality Standard (INWQS) oleh Jabatan Alam Sekitar, Malaysia. Keadaan kualiti air sebegini membenarkan berbagai jenis ameba dijumpai di air Setiu wetland.