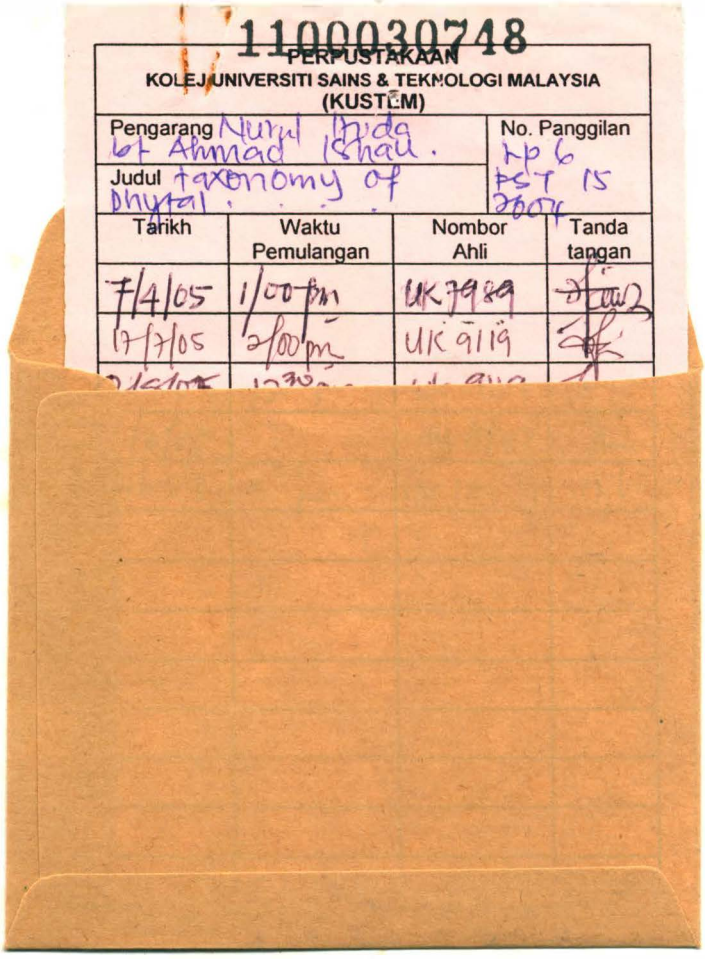
TAXONOMY OF BENTHIC HARPACTICOID COPEPODS FROM TERENGGANU COAST

[illegible]

[illegible]



1100030748

PERPUSTAKAAN
KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA
(KUSTEM)

Pengarang: Nurul Huda bt Ahmad Ishak.
No. Panggilan: Kp 6 PST 15 2004

Judul: taxonomy of phytal.

Tarikh	Waktu Pemulangan	Nombor Ahli	Tanda tangan
7/4/05	1/00 pm	UK7989	
17/7/05	2/00 pm	UK9119	

TAXONOMY OF PHYTAL HARPACTICOID COPEPODS FROM TERENGGANU COAST

By

Nurul Huda bt. Ahmad Ishak

**Research Report submitted in partial fulfilment of
the requirements for the degree of
Bachelor of Applied Science (Biodiversity Conservation and Management)**

**Department of Biological Sciences
Faculty of Science and Technology
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA**
2004

JABATAN SAINS BIOLOGI
FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK PENYELIDIKAN I DAN II

lalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: **'Taxonomy Of Phytal arpacticoid Copepods From Terengganu Coast'** oleh **Nurul Huda Bt Ahmad Ishak**, No. atrik **UK5321** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. aporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian aripada keperluan memperolehi **Ijazah Sarjana Muda Sains Gunaan (Pemuliharaan Dan engurusan Biodiversiti)**, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan eknologi Malaysia.

Disahkan oleh,

.....
Penyelia Utama

Nama: Dr. Zaleha Kassim
Cop Rasmi: Dr. Zaleha Binti Kassim, Pensyarah, Jabatan Sains Samudera, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia, 21030 Kuala Terengganu.

Tarikh: 14/4/04

Disahkan oleh,

.....
Penyelia Kedua

Nama: Cik Faridah Mohamad
Cop Rasmi: [illegible], Fakulti [illegible], Kolej [illegible] Malaysia, 21030 Kuala [illegible], Terengganu.

Tarikh: 14/4/04

Disahkan oleh,

.....
Ketua Jabatan Sains Biologi

Nama: Prof. Dr. Chan Eng Heng
Cop Rasmi: PROF. DR. CHAN ENG HENG, Head, Dept. of Biological Sciences, Faculty of Science & Technology, University College of Science & Technology Malaysia (KUSTEM), 21030 Kuala Terengganu.

Tarikh: 14/4/04

ACKNOWLEDGEMENTS

With the name of Allah, the most gracious and merciful..

All praises are to Allah whose countless blessings enabled me to accomplish this study. I am very grateful to my supervisor, Dr. Zaleha Bt. Kassim for her concern, encouragement and continuous guidance during this study. I also thank Cik Faridah as my co-supervisors for her useful comments and suggestions during the study. I want to thank my parents, Encik Ahmad Ishak B Ngah Ismail and Puan Suheir Bt Abdul Muttalib for guiding me in this game of life, and for being compassionate and understanding as I grow as a person. And for the siblings, Azam, Amin and Hassan, the closer and closer we are, the stronger we become and there ain't no thing that can put us back on a string. B, for always being beside me, behind me and there to guide me through the normal trials of life, for being active in breaking down divisions and stereotypes. Fie, thanks for always being there for me with your constant love, understanding and advice. To the rest of my friends, Ruhil, Aida and Sya, may Allah grant us the Serenity to accept the things we cannot change, the Courage to change the things we can, and the Wisdom to know the difference.. Respect to all copepodologist who struggle to be creative, you make the world a better place..

Jazakallah..

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF SYMBOLS

mm	millimeter
μ	micron
°	degree
″	minute
′	second
%	percent
P1	periopod 1
P2	periopod 2
P3	periopod 3
P4	periopod 4
P5	periopod 5
R1	replicate 1
R2	replicate 2
R3	replicate 3
Fig.	Figure
CMCP-9	Mounting Media Low viscosity, colourless mountant. Refractive index about 1.40

LIST OF APPENDICES

ABSTRACT

The objectives of this research were i) to do a taxanomic identification on the dominant species of harpacticoid copepod associated with seaweed and seagrass; and ii) to investigate the abundance of harpacticoid copepod in different vegetation area. A study on the taxonomy and of phytal meiobenthic harpacticoid copepods found in coastal water of east coast of Peninsular Malaysia was conducted from July 2003 to February 2004. The taxonomic study was carried out using specimens collected from Perhentian Island and Setiu Wetland, by scrap sampling and core sampling. A total of 5 species, representing 5 genera from 4 families of harpacticoid copepods were identified. All the 5 species were unrecorded species in Malaysian east coast. For all species, description, illustration and taxonomic notes were given. Harpacticoid copepods were the dominant group of meiobenthos found in the studied areas. In the study, the most dominant species of harpacticoid found in Setiu were *Paralaophonte octavia* and *Longipedia sp.* They contributed about 5.3% and 5% on the total meiobenthos composition at Tebing Tinggi, Pulau Stopa and Pulau Semut Station, while at Alur Gemia and Alur Juna, they contributed about 8.5% and 4.5% on the total meiobenthos composition. The most dominant species of harpacticoid found at Teluk Keke, Pulau Perhentian was *Phyllothalestris mysis*. It contributed 2.67% of the total meiobenthos composition. The abundance of harpacticoid copepods in vegetated sediment was relatively higher than the bare sediment.

ABSTRAK

Objektif bagi kajian ini adalah untuk i) mengenalpasti taksonomi pada spesies copepoda harpacticoida dominan yang berasosiasi dengan rumput laut; dan ii) mengkaji kelimpahan di kawasan tumbuhan yang berlainan. Satu kajian mengenai taksonomi Copepoda Harpacticoida meiobentik yang berasosiasi dengan tumbuhan yang terdapat di perairan persisir Terengganu telah dijalankan mulai Julai 2003 sehingga Februari 2004. Kajian taksonomi telah dilakukan menggunakan spesimen yang diperolehi daripada Pulau Perhentian dan Tanah Bencah Setiu. Sejumlah 5 spesies, mewakili 5 genera daripada 4 famili Copepoda Harpacticoida telah dikenalpasti. Kesemua 5 spesies itu adalah spesies yang belum direkodkan di perairan Pantai Timur Semenanjung Malaysia. Kesemua spesies diberikan penerangan, ilustrasi dan nota-nota taksonomi.Copepoda Harpacticoida telah dikenalpasti sebagai kumpulan meiobenthos paling dominan di kawasan kajian. Dalam kajian ini, spesies paling dominan yang dijumpai di Setiu adalah*Paralaophonte octavia* dan *Longipedia sp* . Mereka menyumbang 5.3% dan 5% daripada jumlah keseluruhan komposisi meiobenthos di Stesen Tebing Tinggi ,Stesen Pulau Stopa dan Stesen Pulau Semut. Di Alur Gemia and Alur Juna, mereka menyumbang 8.5% and 4.5% daripada jumlah keseluruhan komposisi meiobenthos. Spesies harpacticoida yang paling dominant di Teluk Keke, Pulau Perhentian ialah *Phyllothalestris mysis*. Ia menyumbang 2.67% daripada jumlah keseluruhan komposisi meiobenthos. Kelimpahan Copepoda Harpacticoida di kawasan sedimen yang ada tumbuhan secara relatif adalah lebih tinggi daripada sedimen tanpa tumbuhan di kawasan kajian.