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Lihat sebelah

IDENTIFICATION AND DISTRIBUTION OF SEAWEEDS IN SELECTED AREAS OF TERENGGANU, EAST COAST MALAYSIA

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

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

This project report should be cited as follows:

Maya Sofia, M. K. A. 2006. Identification and Distribution of Seaweeds in Selected Areas of Terengganu, East Coast Malaysia. Undergraduate thesis, Bachelor of Science in Marine Biology. Faculty of Science & Technology, Kolej Universiti Sains & Teknologi Malaysia. 266p.

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

PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:
Identification and Distribution of Seaweed in Selected Areas of Terengganu, East Coasts Malaysia oleh Maya Sofia Bt. Mohd. Kharul Apendi No. Matrik UK 7968 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Samudera sebagai memenuhi sebahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains (Biologi Marin), Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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Tarikh: 30/4/2006

ACKNOWLEDGEMENTS

First of all, I would like to thank Allah S.W.T for His guidance and blessings. I would also like to express my heartiest gratitudes to my supervisor, Dr. Siti Aishah Abdullah for her guidance in the completion of this project and being generous in sharing her knowledge. Also thanks to my senior, M.H. Gan for his kindness and fabulous help in everyway.

My gratitude also goes to the Institute Oceanography (INOS) especially INOS officer, Encik Azman bin Senu and Puan Salmiah for their cooperation and helping while sampling and also for use of facilities in the laboratory .

My greatest appreciation is expressed to my parents, family and for all my loving persons for their unconditional love and support all these years. Not forgetting my housemates, Wahidah, Lat, Aidah, Siti, and Ana thanks for being my friends and help me a lot in everyway for all these years. Hopefully our friendship will never end and the glory of success is ours.

Thank you all and may Allah bless you!

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LIST OF ABBREVIATIONS/ SYMBOLS

%	-	Percent
×	-	Magnification
°C	-	degree Celcius
µm	-	Micrometer
‰	-	Part per thousand
cm	-	Centimeter
g	-	Gram
g/L	-	Gram per Liter
km	-	Kilometer
L	-	Liter
m	-	Meter
m^2	-	square Meter
mg	-	Milligram
mg/L	-	Milligram per Liter
mL	-	Milliliter
mm	-	Millimeter
nm	-	Nanometer
sp.	-	Species

ABSTRACT

This study were done in 12 locations in Terengganu coastal areas and Bidong Island from August to September 2005 and was funded by Biodiversity Laboratory of Oceanography Institute, KUSTEM in East Coast of Peninsular Malaysia Expedition 1 2005. A total of 129 taxa were recorded from this 12 locations and most of them were small size seaweeds. From the division Cyanophyta, there were three orders, four families, two subfamilies and 12 species; seven orders, 11 families and 30 species in division Chlorophyta, four orders, four families, 25 species from division Heterokontophyta and five orders, 14 families, and 62 species were identified under division Rhodophyta. Nine species were only identified to genus level because it was difficult to determine the species due to some problems. These species included three taxa from division Chlorophyta, one species from division Heterokontophyta and five from the division Rhodophyta. Seaweeds from division Rhodophyta were the most commont seaweed species and it accounted for 49 % from overall seaweeds collected. It was followed by division Chlorophyta 23 %, 19 % from division Heterokontophyta and species from division Cyanophyta only constituted 9 %. Species that had the widest distribution were *Enteromorpha clathrata* (Division Chlorophyta), *Padina australis* (Division Heterokontophyta) and *Gelidiella acerosa* (Division Rhodophyta) which were recorded in eight different sampling locations. Among the 129 taxa of seaweeds that were recorded, there were 62 species of seaweeds that were only recorded in one (8.33%) sampling location. There were 63 new species that were recorded in the East Coast of

Peninsular Malaysia for the first time. There were 41 species that were recorded for the first time in Malaysia. Almost all the sampling stations with high number of species were rocky shore areas. Station Pantai Kemasik had the highest number of seaweeds while Jetty Shahbandar have the lowest number of seaweeds. Station Setiu Wetlands have the lowest similarity of seaweeds species when compared with other stations. There is no similarity among the other stations with station Jetty Shahbandar.

ABSTRAK

Kajian telah dijalankan di 12 lokasi di sepanjang Pantai Terengganu dan Pulau Bidong dari bulan Ogos hingga September 2005. Kajian ini dibiayai oleh Makmal Biodiversiti Institut Oseanografi, KUSTEM melalui Ekspidisi Pantai Timur 1 2005. Sejumlah 129 taksa rumpai laut telah dikenal pasti dan direkodkan dari 12 lokasi. Kebanyakan rumpai laut yang dijumpai adalah bersaiz kecil. Daripada divisi Cyanophyta, tiga order, empat famili, dua subfamily dan 12 spesis dicatatkan. Tujuh order, 11 famili dan 30 spesis direkodkan dalam divisi Chlorophyta, empat order, empat famili, 25 spesis dari divisi Heterokontophyta dan lima order, 14 famili, dan 62 spesis telah dikenal pasti dalam divisi Rhodophyta. Terdapat sembilan spesis yang hanya dapat dikenal pasti sehingga peringkat genus sahaja kerana terdapat kesukaran untuk identifikasi atas beberapa sebab. Spesis ini adalah tiga spesis dari divisi Chlorophyta, satu spesis dari divisi Heterokontophyta dan lima spesis dari divisi Rhodophyta. Rumpai laut dari divisi Rhodophyta adalah rumpai laut yang paling sering dan banyak dijumpai iaitu merangkumi 49 % dari jumlah semua rumpai laut yang diperolehi. Ini diikuti oleh divisi Chlorophyta 23 %, 19 % dari divisi Heterokontophyta dan hanya 9 % dicatatkan bagi divisi Cyanophyta. Spesis yang mempunyai penyebaran terluas ialah *Enteromorpha clathrata* (Divisi Chlorophyta), *Padina australis* (Divisi Heterokontophyta) dan *Gelidiella acerosa* (Division Rhodophyta) yang direkodkan di lapan lokasi berbeza. Dari 129 taksa rumpai laut yang direkodkan, 62 spesis direkodkan hanya di satu lokasi sahaja (8.33%). Terdapat 63 spesis baru yang direkodkan di kawasan Pantai Timur

Semenanjung Malaysia. Sebanyak 41 spesis pertama kali direkodkan di Malaysia. Hampir kesemua stesen penyampelan yang mempunyai jumlah spesis yang tinggi adalah kawasan pantai berbatu. Stesen Pantai Kemasik mempunyai jumlah spesis rumpai laut yang tertinggi berbanding stesen lain manakala Jeti Shahbandar mempunyai jumlah spesis yang paling sedikit. Stesen Setiu mempunyai persamaan spesis rumpai laut yang rendah jika dibandingkan dengan stesen-stesen yang lain. Tiada persamaan antara stesen lain dengan stesen Jeti Shahbandar.