

PHYTOPLANKTON DISTRIBUTION IN DUNGUN-KEMAMAN
COASTAL WATER

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PHYTOPLANKTON DISTRIBUTION IN DUNGUN-KEMAMAN COASTAL WATER

By

Effi Helmy bin Ariffin

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the requirements for degree of
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**JABATAN SAINS MARIN
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**PENGAKUAN DAN PENGESAHAN LAPORAN
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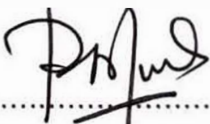
PHYTOPLANKTON DISTRIBUTION IN DUNGUN-KEMAMAN COASTAL WATER oleh **EFFI HELMY BIN ARIFFIN**, No. Matrik **UK 12079** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Marin sebagai memenuhi sebahagian daripada keperluan memperoleh **Ijazah SARJANA MUDA SAINS (SAINS SAMUDERA)**, Fakulti Pengajian Maritim dan Sains Marin, Universiti Malaysia Terengganu.

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LIST OF ABBREVIATIONS/ SYMBOLS

$C_6H_{12}O_6$	-	Carbonate ions
CO_2	-	Carbone dioxide
<	-	Less than
L	-	Liter
m	-	Meter
mL	-	Milliliter
μ	-	Micrometer
>	-	More than
No./L	-	Number per liter
No./mL	-	Number per milliliter
O_2	-	Oxygen
ppt	-	Part per thousand
‰	-	Part per thousand
%	-	Percent
$^{\circ}C$	-	Temperature
H_2O	-	Water molecule

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ABSTRACT

Distribution and abundance of phytoplankton in Dungun-Kemaman coastal water was studied during March and May 2007; which this period after post monsoon. Water sample was filtered by serial net; which the sizes were 20 μm , 40 μm , 60 μm and were preserved by Lugol's. Identification and calculation of phytoplankton were done by the Drop Method and compound microscope. Three main calculations were being calculated such as number per cell (abundance), index diversity, and index evenness. From the result, total genera was 35 genera where, 29 genera of phytoplankton obtained during March for net size 20 μm , 40 μm , and 60 μm were 2195 cells per liter, 31648 cells per liter, and 23738 cells per liter respectively. During May, the result is 27 genera; which 20 μm , 40 μm , and 60 μm were 12208 cells per liter, 13280 cells per liter, and 22285 cells per liter respectively. Diatom was major of division and the genus identified was *Bacteriastrum* sp., *Chaetoceros* sp., *Hemiaulus* sp., and *Leptocylindrus* sp. During March, average value of index diversity for 20 μm , 40 μm , and 60 μm were 2.07 ± 0.42 , 2.26 ± 0.55 and 1.71 ± 0.51 respectively. During May, average value of index diversity for 20 μm , 40 μm , and 60 μm were 2.16 ± 0.69 , 2.58 ± 0.51 and 2.50 ± 0.39 respectively. During March, average value of index evenness for 20 μm , 40 μm , and 60 μm were 0.78 ± 0.07 , 0.80 ± 0.09 , and 0.71 ± 0.20 respectively. During May, average value for index evenness of 20 μm , 40 μm , and 60 μm were 0.73 ± 0.17 , 0.81 ± 0.12 and 0.82 ± 0.12 respectively.