

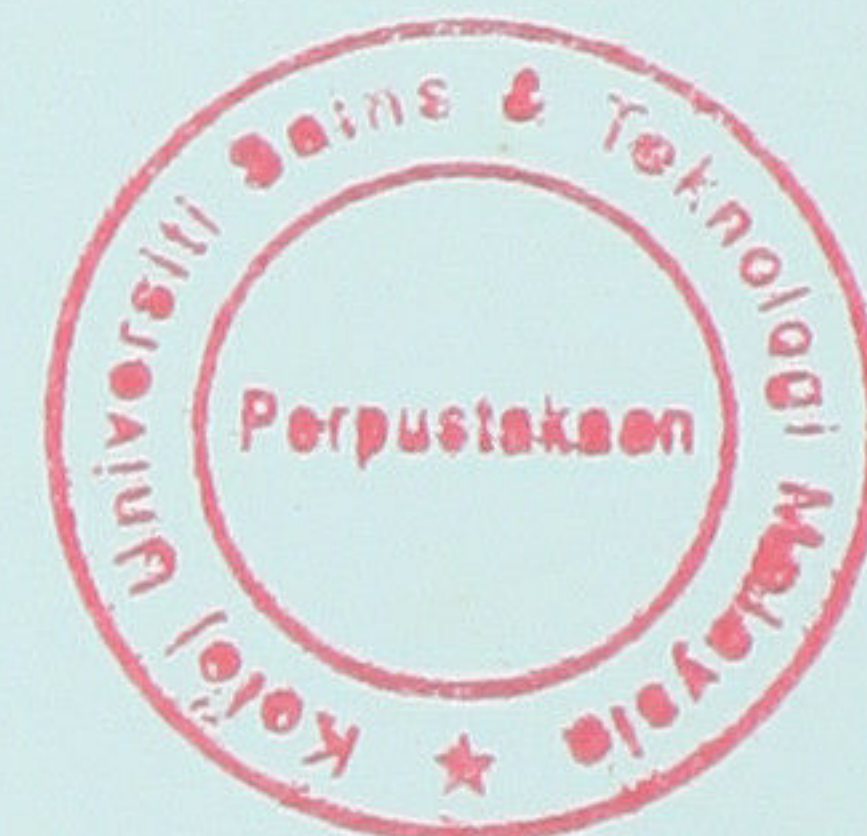
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Comparison of porosity of various coral skeletons / Natasha Nordin Manan.



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COMPARISON OF POROSITY OF VARIOUS CORAL SKELETONS

By

NATASHA NORDIN MANAN

Research report submitted in partial fulfillment of
the requirements for the
Bachelor of Science (Marine Biology)

Department of Fisheries and Marine Science

Faculty of Science and Technology

KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

2003

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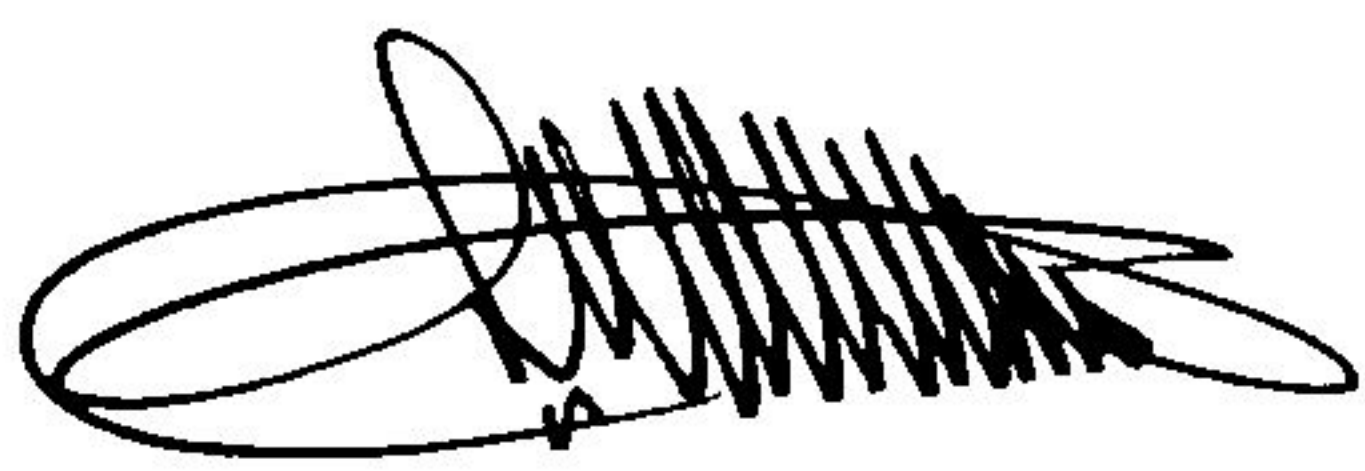
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APPROVAL FORM

It is hereby acknowledged and verified that this research report entitled:
Comparison of Porosity of Various Coral Skeletons, by Natasha Nordin Manan,
matric number UK4691, has been examined and all corrections have been made. This
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(Marine Biology), Faculty of Science and Technology, Kolej Universiti Sains dan
Teknologi Malaysia.

Verified by:



1st Supervisor

Liew Hock Chark

Date:14/08/03.....

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LIST OF SYMBOLS

Acronym	Meaning
μ	micro
c	centi
m	meter
2	squared (area)
3	cube (volume)
$^{\circ}\text{C}$	degrees Celsius
%	percent

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ABSTRACT

In Malaysia, there is interest in producing locally-made coral bone grafts from locally sourced corals as alternatives to the imported and expensive ones currently used. This preliminary study is concerned with assessing the difference in porosity between various local coral genera. *Porites* sp., *Acropora* sp., *Montipora* sp. branching type and *Montipora* sp. platy type were collected from the waters off Bidong Island and the pores were analysed using an image analysis software. All four coral species showed a significant difference in porosity between them, whether comparing among live or dead skeletons. Only *Porites* sp. and *Montipora* sp. branching showed a significant difference in porosity between live and dead coral skeletons.

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ABSTRAK.

Di Malaysia, terdapat minat untuk menghasilkan graf tulang batu karang yang dibuat dalam negara dan menggunakan batu karang tempatan. Ini adalah untuk menyediakan alternatif kepada graf tulang batu karang sedia ada yang diimport dan mahal. Kajian awal ini bertumpu menilai perbezaan keporosan antara pelbagai genus batu karang tempatan. *Porites* sp., *Acropora* sp., *Montipora* sp. jenis bercabang and *Montipora* sp. jenis berplat dikutip dari perairan Pulau Bidong dan pori-porinya dianalisis menggunakan sebuah perisian penganalisis imej. Kesemua spesis batu karang menunjukkan perbezaan keporosan yang signifikan, samada membezakan di antara rangka batu karang yang mati ataupun hidup. Hanya *Porites* sp. dan *Montipora* sp. jenis bercabang menunjukkan perbezaan signifikan antara rangka yang mati dan hidup.