

DIVERSITY OF CORAL FORM AT SELECTED AREA OF
BIDONG ISLAND AND REDANG ISLAND, TERENGGANU

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FACULTY OF MARITIME STUDIES AND MARINE SCIENCE
UNIVERSITI MALAYSIA TERENGGANU

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**DIVERSITY OF CORAL FORM AT SELECTED AREA OF BIDONG ISLAND AND
REDANG ISLAND, TERENGGANU.**

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**Research Report submitted in partial fulfillment of
the requirements for degree of
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**DECLARATION AND VERIFICATION REPORT
FINAL YEAR RESEARCH PROJECT**

It is hereby declared and verified that this research report entitled:

Diversity Of Coral Form At Selected Area Of Bidong Island And Redang Island, Terengganu by **Nora Dinah Bt Abdul Rahman** Matric No. **UK18070** have been examined and all errors identified have been corrected. This report submitted to the Department of Marine Science and as a partial fulfillment toward obtaining the Degree of Marine Biology, Faculty of Maritime Study and Marine Science, University Malaysia Terengganu, Terengganu, Malaysia.

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LIST OF ABBREVIATIONS

GPS	-	Global Positioning System
COTs	-	Crown of Thorns Starfish
CPCe	-	Coral Point Count with Excel extension
EA	-	East Atlantic
EP	-	West Atlantic
IWP	-	Indo West-Pacific
GBR	-	Great Barrier Reef
MPA	-	Marine Protected Area
PIT	-	Point Intercept Transect
FMSM	-	Faculty of Maritime Science and Marine Science
kg	-	kilogram
MARPOL	-	International Convention for the Prevention Pollution from Ships
UMT	-	Universiti Malaysia Terengganu

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CORAL DISTRIBUTION AT SELECTED AREA OF BIDONG AND REDANG ISLAND, TERENGGANU

ABSTRACT

A study of coral reef distribution was conducted by Point Intercept Transect and Video Transect method at Bidong Island (Karah, Pasir Cina and Tengkorak Island) and Redang Island (Batu Ling and Terumbu Kili). Mean for coral distribution at all station using PIT showed 62% was dead coral, 30% was live coral and 8% was others forms while Video showed 67% was dead coral, 20% was live coral and 13% was others (0.28% algae, 2% invertebrate and 11% SSR). Using PIT methods, Karah, Bidong, Tengkorak and Batu Ling was resulted as 'Fair' condition and Terumbu Kili as 'Poor' condition according to Gomez et al. (1994). Video methods showed only Batu Ling stated as 'Fair' while the other sites was in 'Poor' condition. The most abundant live coral at study sites for both methods was *Acropora* branching except for Terumbu Kili using PIT method that showed Coral Foliose as abundant coral form. Based on study, coral diversity was higher at Batu Ling than others station followed by Karah, Bidong, Terumbu Kili and Tengkorak. Invertebrate diversity was found higher at Tengkorak and followed by Batu Ling, Karah, Bidong and Terumbu Kili. There are several threats that cause stress to coral and lead to coral damage which are coastal development, unsustainable tourism and predator (*Drupella* spp. and COT). In order to save coral from extinct, human need to conserve them.

TABURAN BATU KARANG DI KAWASAN TERPILIH PULAU BIDOANG DAN PULAU REDANG

ABSTRAK

Kajian taburan batu karang menggunakan kaedah PIT dan Video di Bidong Island (Karah, Pasir Cina and Tengkorak Island) dan Redang Island (Batu Ling and Terumbu Kili). Min taburan batu karang menggunakan PIT menunjukkan 62% adalah batu karang mati, 30% batu karang hidup dan 8% untuk lain-lain bentuk manakala video menunjukkan 67% adalah batu karang mati, 20% batu karang hidup dan 13% lain-lain bentuk (0.28% alga, 2% invertebrat and 11% SSR). Menggunakan kaedah PIT, Karah, Bidong, Tengkorak and Batu Ling dikategorikan sebagai 'Fair' dan Terumbu Kili sebagai 'Poor' berdasarkan kepada Gomez et al. (1994). Kaedah Video menunjukkan hanya Batu Ling dikategorikan sebagai 'Fair' sementara kawasan kajian lain adalah 'Poor'. Batu karang yang paling banyak dijumpai menggunakan kedua-dua kaedah adalah *Acropora branching* kecuali Terumbu Kili yang menggunakan kaedah PIT menunjukkan Coral Foliose adalah yang paling banyak. Berdasarkan kepada kajian, kepelbagaian batu karang adalah paling tinggi di Batu Ling diikuti dengan Karah, Bidong, Terumbu Kili and Tengkorak. Kepelbagaian invertebrat adalah paling tinggi dijumpai adalah Tengkorak diikuti dengan Batu Ling, Karah, Bidong and Terumbu Kili. Terdapatnya sesetengah ancaman yang menyebabkan tekanan kepada batu karang yang boleh menyebabkan kematian dan kerosakan kepada batu karang. Antaranya adalah pembangunan, pelancongan yang tidak teratur dan pemangsa batu karang (*Drupella* spp. and COT). Manusia perlulah menjaga batu karang bagi mengelakkan kepupusan dan untuk tatapan anak-anak pada masa akan datang.