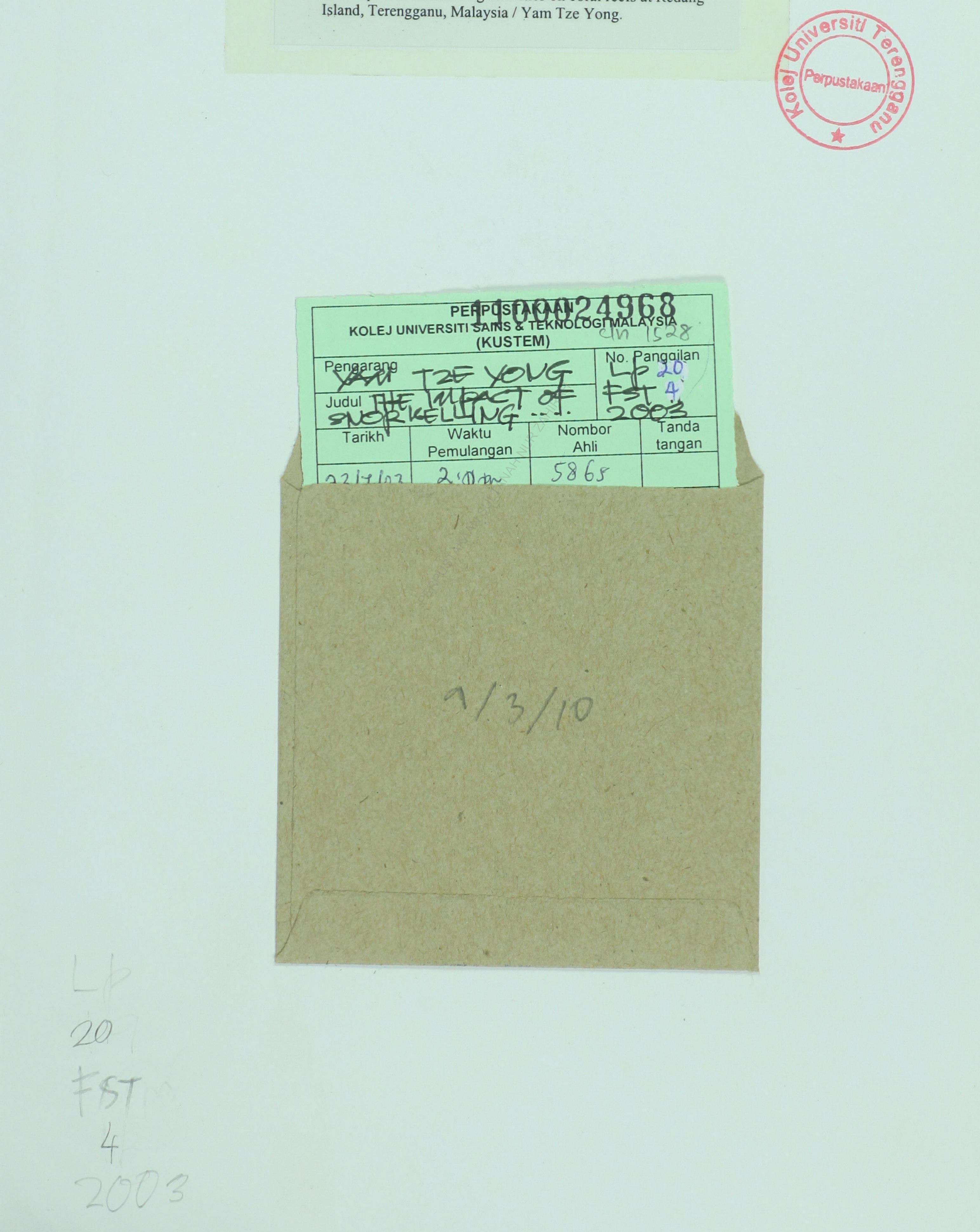


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1100024968 The impact of snorkelling activities on coral reefs at Redang Island, Terengganu, Malaysia / Yam Tze Yong.



## THE IMPACT OF SNORKELLING ACTIVITIES ON CORAL REEFS AT REDANG ISLAND, TERENGGANU, MALAYSIA

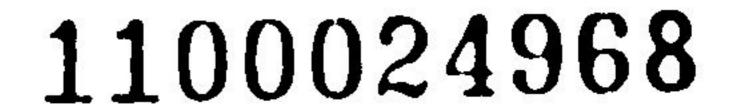
#### YAM TZE YONG

This project is submitted in partial fulfillment of the requirements for the degree of Bachelor of Science (Marine Biology)

2 CRANNES

## Faculty of Science and Technology Kolej Universiti Sains dan Teknologi Malaysia, KUSTEM Malaysia

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#### Dedication...

To whom I love, and who loves me…especially 'Xiao Chior' and 'Xiao Dolphin'...♥

Stranger and the south of the s

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# ABSTRACT

This study was conducted to investigate the impact of snorkelling activities on

coral reefs at Redang Island. Transect surveys were carried out to determine the reef

condition at the study sites. Information on the snorkellers and their activities were

collected through questionnaires and direct observation studies. Coral reefs in Redang

Island were still in good condition with live coral coverage of 70.1  $\pm$  8.6%. Coral reef

distribution was affected by the intensity of snorkellers, sites with lower frequency of

visits by snorkellers had higher live coral cover percentage than sites with high

intensity of snorkellers. Reef fish showed higher abundance in sites with higher

frequency of visit by snorkellers, where fish feeding occurred. Giant clams had the

highest abundance of shellfish species recorded. Direct observation showed the highest type of contact were standing on coral by snorkellers, total frequency were 89

times or averaging 9.89 times per trip. Through the questionnaire survey, 25% of the

tourists confessed to stepping on coral while snorkelling. A Chi-square contingency

test showed the chance of stepping on coral were gender related. While 11% of the

tourists did damage to corals accidentally. More that 80% of the tourists were aware

that coral reefs in Redang Island were threatened and protected. All tourists agreed

that coral reefs should be protected, with only 2% of the males disagreeing.

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# ABSTRAK

Kajian mengenai kesan aktiviti 'snorkelling' terhadap terumbu karang ini dijalankan di Pulau Redang. Kaedah transek telah digunakan untuk mengkaji populasi terumbu tersebut. Maklumat tentang aktiviti dan profil pelancong diperolehi melalui

soal selidik dan pemerhatian terhadap aktiviti 'snorkelling'. Terumbu karang di Pulau

Redang masih berada dalam keadaan yang baik di mana kawasan yang diliputi karang

adalah 70.1 <u>+</u> 8.6%. Taburan terumbu karang dipengaruhi oleh kekerapan lawatan

pelancong, kawasan yang kurang dilawat pelancong mempunyai liputan karang mati

yang lebih tinggi. Bilangan ikan terumbu adalah lebih tinggi di kawasan sering

dilawat pelancong, di mana berlakunya pemberian makanan kepada ikan oleh

pelancong. Kima merupakan spesis cengkerang yang dominan di kawasan terumbu. Pelacong sering berdiri atas batu karang semasa 'snorkelling', iaitu berjumlah sebanyak 89 kali atau purata 9.98 kali per setiap permergian. Maklumat dari soal

selidik menunjukkan 25% pelancong mengaku bahawa mereka memijak di atas batu semasa 'snorkelling'. Ujian *Chi-square* menunjukkan kecenderungan karang pelancong memijak atas batu karang adalah berbeza antara jantina. Manakala 11% pelancong telah merosakkan batu karang secara tidak sengaja. Lebih daripada 80% pelancong sedar bahawa terumbu karang di Pulau Redang adalah diancam dan dilindungi. Semua pelancong setuju bahawa terumbu karang patut dilindungi, hanya

2% pelancong lelaki tidak setuju.

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