

FEEDING BEHAVIOUR OF PARROTFISHES OF THE GENUS
Scarus IN REDANG ISLAND

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Feeding behaviour of parrotfishes of the genus *Scarus* in Redang
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FEEDING BEHAVIOUR OF PARROTFISHES OF THE GENUS *Scarus* IN REDANG
ISLAND

By

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Research Report submitted in partial fulfillment of
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**DEPARTMENT OF MARINE SCIENCE
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DECLARATION AND VERIFICATION REPORT

FINAL YEAR RESEARCH PROJECT

It is hereby declared and verified that this research report entitled: Feeding behavior of parrotfishes of the genus *Scarus* in Redang Island by Goh Hui Xin, Matric No. 17252 have been examined and all errors identified have been corrected. This report is submitted to the Department of Marine Science as partial fulfillment towards obtaining the Degree of Bachelor of Science (Marine Biology), Faculty of Maritime Studies and Marine Science, Universiti Malaysia Terengganu.

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LIST OF ABBREVIATIONS

cm	–	centimeter
km	–	kilometer
m	–	meter
⁰ C	–	degree celcius

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ABSTRACT

This study was conducted to determine the feeding rate of *Scarus* sp. at different time period in a day, correlation between the abundance of *Scarus* sp. and benthic composition and to identify the species of seaweed collected from their grazed substratum. The sampling for this study was conducted at 4 sites located at Long beach, Redang Island. As for the feeding rate study, 3 individuals for each chose adult species (*S. ghobban*, *S. rivulatus* and *S. niger*) and juveniles at different time periods (9 am, 12 pm and 4pm). Overall, the feeding rate is not significantly different ($P > 0.05$) between species but showed significant different ($P < 0.05$) when compared to different time periods. A total of 8 species of the genus *Scarus* were encountered and identified throughout 4 sampling sites and the relationship between the abundance of *Scarus* sp. and benthic composition was determined using Spearman rank correlation. It was found that the abundance of both adult and juvenile *Scarus* sp. is significantly correlated with the percentage of dead coral with algae (DCA) ($r_s = 0.4168$, $P = 0.0428$) but showed no correlation with the percentage of live coral ($r_s = -0.019$, $P = 0.94283$) in all sampling sites. A total of 20 identified genera from 12 families were identified from the seaweed collected from the grazed substratum by both adult and juvenile *Scarus* sp.

ABSTRAK

Kajian ini terdiri daripada 3 bahagian utama yang meliputi penentuan kadar makan *Scarus* sp. pada waktu yang berbeza, hubungan antara bilangan *Scarus* sp. dengan komposisi bentik dan mengenalpasti spesis rumput laut yang telah dikumpulkan dari substrata yang telah dimakan oleh *Scarus* sp. Kajian ini telah dijalankan di 4 lokasi yang terletak di Pasir Panjang, Pulau Redang. Kadar makan 3 individu untuk setiap spesis dewasa iaitu *S. ghobban*, *S. niger*, *S. rivulatus* dan juga anak *Scarus* telah ditentukan pada tempoh masa yang berbeza (pukul 9, pukul 12 dan 4 pm). Secara keseluruhan, kadar makan didapati tidak signifikan ($P > 0.05$) antara sepsis tetapi menunjukkan perbezaan signifikan apabila dibanding dengan tempoh masa yang berbeza. Sebanyak 8 spesis dari genus *Scarus* yang didapati di seluruh keempat-empat lokasi sampling. Korelasi rank Spearman telah menunjukkan bahawa bilangan *Scarus* sp. adalah berkorelasi dengan peratusan karang mati dengan alga (DCA) ($r_s = 0.4168$, $P = 0.0428$) sedangkan tidak berkorelasi ($r_s = -0.019$, $P = 0.94283$) dengan karang hidup di semua lokasi sampling. Di samping itu, sebanyak 20 genera dari 12 famili rumput laut yang telah dikumpul dari subtrata yang telah dimakan oleh *Scarus* sp. telah dikenalpasti.