

MOVEMENT PATTERN OF MUD CRAB, GENUS *Scylla*
ASSESSMENT THROUGH MARK-RELEASE –RECAPTURE
TECHNIQUE

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SCHOOL OF MARITIME STUDIES AND MARINE SCIENCE
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**MOVEMENT PATTERN OF MUD CRAB, GENUS *Scylla* ASSESSMENT
THROUGH MARK-RELEASE-RECAPTURE TECHNIQUE**

By

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**Research Report submitted in partial fulfillment of
the requirement for the degree of
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DEPARTMENT OF MARINE SCIENCE
FACULTY OF MARITIME STUDIES AND MARINE SCIENCE

DECLARATION AND VERIFICATION REPORT
FINAL YEAR RESEARCH PROJECT

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

Movement Pattern of Mud Crab, Genus *Scylla* Assessment through Mark-Release-Recapture Technique by Noor Baiduri binti Shaibani Matric No. UK16973 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 in **Bachelor of Science (Marine Biology)** Faculty of Maritime Studies and Marine Science, Universiti Malaysia Terengganu.

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LIST OF ABBREVIATIONS

GPS	-	Global Position System
VIE	-	Visible Implant Elastomer
CPUE	-	Catch per Unit Effort
CW	-	carapace width
BW	-	body weight
spp.	-	species
ppt	-	part per thousand
m	-	meter
mm	-	millimeter
cm	-	centimeter
g	-	gram
%	-	percent

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ABSTRACT

This study was conducted at Setiu Wetland, Terengganu. Mud crab, genus *Scylla* species are commercially important mangrove resident found within the mangrove area. The movement patterns were studied through the tag return by using mark-release-recapture technique. The crab samples were tagged by Fluorescing Visible Implant Elastomer (VIE) tag and released at the same captured stations for one week interval before the next sampling. The crab samples were measured, identified for mud crab species and recorded. Three species were present and dominated by *S. olivacea* and *S. paramamosain*. Only a few samples of *S. tranquebarica* were obtained. The movement of *S. olivacea* was more restricted and have high tendency to inhabit certain area for a period of time. As for the *S. paramamosain*, their movement was free-ranging and rarely inhabits the same area for a long period.

**Penilaian Pola Pergerakan Ketam Nipah, genus *Scylla*
Melalui Teknik Tangkap-Tanda-Lepas**

ABSTRAK

Kajian ini telah dijalankan di Setiu Wetland, Teregganu. Ketam nipah, genus *Scylla* adalah spesies yang mempunyai kepentingan komersial ditemui dalam kawasan hutan bakau. Pola pergerakan ini dikaji melalui tag yang kembali menggunakan teknik tangkap-tanda-lepas. Sampel-sampel ketam ditanda menggunakan *Fluorescing Visible Implant Elastomer (VIE) tag* dan dilepaskan di stesen dimana sampel tersebut ditangkap untuk tempoh masa seminggu sebelum persampelan berikutnya. Sampel-sampel ketam tersebut diukur, spesies ketam dikenalpasti dan direkod. Tiga spesies telah diperoleh dan didominasi oleh *S. olivacea* dan *S. paramamosain*. Hanya sebilangan kecil *S. tranquebarica* yang diperoleh daripada sampel-sampel tersebut. Pergerakan *S. olivacea* adalah lebih terhad dan berkecenderungan untuk mendiami kawasan tertentu untuk suatu tempoh masa. Sedangkan untuk *S. paramamosain*, pergerakan adalah lebih bebas dan jarang mendiami suatu kawasan untuk tempoh masa yang lama.