

PRELIMINARY STUDY OF DISTRIBUTION AND
ABUNDANCE OF FISH AT KELANTAN DELTA

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**PRELIMINARY STUDY OF DISTRIBUTION AND ABUNDANCE OF FISH AT
KELANTAN DELTA**

By

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**Research Report submitted in partial fulfillment of
The requirements for the degree of
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LAPORAN PROJEK PENYELIDIKAN I DAN II**

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LIST OF ABBREVIATIONS

μm	Micrometer
mm	Millimeter
m	Meter
cm	Centimeter
$^{\circ}\text{C}$	Degree Celsius
'	Minute
$^{\circ}$	Degree
N	North
E	East
%	Percentage
H_2O_2	Hydrogen peroxide
g	Gram
DO	Dissolved Oxygen
‰	Salinity
mg/l	Milligram per litre
ind/m^2	Individual per meter square
Q1	First quadrat
Q2	Second quadrat
Q3	Third quadrat
T1	First transect
T2	Second transect
T3	Third transect
\emptyset	Phi

LIST OF ABBREVIATIONS

R'	Species Richness
J'	Species Evenness
H'	Species Diversity
ppt	Part per thousand
PSA	Particle Size Analysis
±	Plus-Minus Sign

ABSTRAK

Kajian ini telah dijalankan untuk mengetahui secara meluas komposisi kekayaan, kesamaan dan kepelbagaian populasi ikan di kawasan paya bakau. Lokasi Delta Kelantan telah di pilih sebagai tempat kajian. Kedudukan delta ini yang strategik dan masih mengekalkan persekitaran semulajadi ini merupakan habitat bagi spesies ikan paya bakau dan ikan marin. Secara keseluruhannya 178 sampel ikan diperolehi daripada kajian yang ini yang melibatkan 2 ulangan. Kajian yang telah di jalankan melibatkan 25 family dan 41 spesies. Kesemua hasil tangkapan didominasi oleh famili Apogonidae and Mugillidae. Famili tersebut ialah Ambassidae, Ariidae, Apogonidae, Bagridae, Batrachoididae, Belonidae, Centropomidae, Clupeidae, Engraulididae, Gerreidae, Gobiidae, Leiognathidae, Muraenesocidae, Mugillidae, Paralichthyidae, Palemonidae, Panaeidae, Platycephalidae, Plotosidae, Scathophagidae, Scorpaenidae, Sciaenidae, Soleidae, Tetraodontidae. Keputusan menunjukkan tangkapan pada stesen pertama dan ketiga pada sampling kali pertama merupakan tangkapan tertinggi. Taburan dan kepelbagaian ikan setiap stesen dibincangkan. Didapati taburan ikan di setiap stesen tidak sama dan dipengaruhi oleh faktor-faktor tertentu dan dibincangkan.

ABSTRACT

A study was conducted with respect to fish species composition, diversity and distribution at mangrove area in Kelantan Delta. Trammel nets were set up in selected mangrove area of each station for one tidal cycle. Four station were selected covering the whole delta areas. The number of fish species sample from this habitats were 177 specimens. 40 species of fish were identified and 25 families could be found in the river. The families were include Ambassidae, Apogonidae, Ariidae, Bagridae, Belonidae, Batrachoididae, Clupeidae, Centropomidae, Engraulididae, Gobiidae, Gerreidae, Leiognathidae, Mugulidae, Muraenesocidae, Palemonidae, Panaeidae, Plotosidae, Platycephalidae, Paralichthyidae, Scathophagidae, Scorpaenidae, Soleidae, Synanceiidae, Sciaenidae, Toxotidae, Tetraodontidae. This study showed that *Apogon Glylosoma* from family Apogonidae was the dominant mangrove fish species among the others. Result showed that the catch in station one and station three at first sampling is higher compare to others. The distribution and diversity of mangrove fish each station is discussed.