# SPECIES DIVERSITY AND BIOLOGY OF LANDED SHARKS IN PULAU KAMBING LANDING SITE, KUALA TERENGGANU

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# SPECIES DIVERSITY AND BIOLOGY OF LANDED SHARKS IN PULAU KAMBING LANDING SITE, KUALA TERENGGANU

By

Nur Azimah Az'ri

Researh Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Science (Marine Science)

School of Marine & Environmental Sciences
UNIVERSITI MALAYSIA TERENGGANU

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# DECLARATION AND VERIFICATION REPORT

#### FINAL YEAR RESEARCH PROJECT

It is hereby declared and verified that this research report entitled <u>SPECIES DIVERSITY AND BIOLOGY OF LANDED SHARKS IN PULAU KAMBING LANDING SITE, KUALA TERENGGANU</u> by <u>NUR AZIMAH AZ'RI</u>, Matric No. <u>UK 28215</u> 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 SCIENCE (MARINE SCIENCE), School of Marine and Environmental Sciences, Universiti Malaysia Terengganu.

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#### LIST OF ABBREVIATIONS

cm - centimetre

m metre

kg - kilogram

nm - nautical miles

TL - Total length

BW Body weight

PCL - Precaudal length

SEAFDEC - Southeast Asian Fisheries Development Center

FAO - Food and Agriculture Organization

EEZ - Exclusive Economic Zone

IUCN - International Union for Conservation of Nature

pers. commu - personal communication

#### **ABSTRACT**

A total of 89 sharks landed at Pulau Kambing landing port from the Terengganu waters region, comprising the four families, Carcharhinidae, Hemiscylliidae, Sphyrnidae and Scyliorhinidae, and 8 of these shark species were examined. Measurements of size and weight were different and varied among species, ranging from 0.3 to 7.5 kg in body weight and from 41.6 to 105 cm in total length. Chiloscyllium punctatum were the most dominant species. The average size showed in the result, landed shark were abundance in juvenile stage from the total collection, especially for genus Carcharhinus and genus Sphyrna that landed, Carcharhinus sorrah, Carcharhinus sealei, Carcharhinus brevipinna and Sphyrna lewini is categorized as Endangered species and other sharks included in the landings are also categorized as Near Threatened. Thus, the current fishing methods could lead to critical levels of shark species in these waters, and even the future extinction of species. An improvement in the species selectiveness of fishing gear is needed to protect and conserve sharks in the area.

**Keywords**: bycatch, abundance, diversity, taxonomy, Selachii, conservation, endangered, Terengganu waters

# KEPELBAGAIAN SPESIS DAN BIOLOGI IKAN YU YANG DIDARATKAN DI PELABUHAN PENDARATAN PULAU KAMBING, KUALA TERENGGANU

#### **ABSTRAK**

Sejumlah 89 ekor ikan yu yang didaratkan di pelabuhan pendaratan Pulau kambing Kuala Terengganu dari perairan Terengganu terdiri daripada empat famili iaitu Carcharhinidae, Hemiscylliidae, Sphymidae dan Scyliorhinidae, serta lapan jenis spesis ikan yu telah diperiksa. Ukuran saiz dan berat badan adalah berbeza serta pelbagai antara spesis di mana berat badan adalah dari 0.3 hingga 7.5 kg dan jumlah panjang adalah dari 41.6 hingga 105 cm. Chiloscyllium punctatum adalah spesis yang paling dominan. Purata saiz yang ditunjukkan dalam hasil kajian, pendaratan ikan yu adalah paling banyak di peringkat yang masih juvenil daripada jumlah keseluruhan koleksi, terutamanya bagi genus Carcharhinus dan Sphyma iaitu Carcharhinus sorrah, Carcharhinus sealei, Carcharhinus brevipinna and Sphyrna lewini dikategorikan sebagai spesis yang terancam dan ikan yu lain yang telah didaratkan dikategorikan sebagai spesis yang hampir terancam. Oleh itu, kaedah penangkapan ikan pada masa kini boleh membawa kepada tahap kritikal kepada spesis ikan yu di perairan ini dan juga boleh membawa kepada kepupusan spesis pada masa akan datang. Kemajuan dalam gear penangkapan ikan untuk pemilihan spesis diperlukan bagi melindungi dan memulihara ikan yu di kawasan ini.