

AMENJALAN PASTI AT KOLEJ UNIVERSITI
SAINS DAN TEKNOLOGI MALAYSIA
(KAMPUS)

EMAS A ZAMRI

FAMKILIA SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
2006

LP
7
FST
5
2006

AVIFAUNA AT COASTAL AREA AT KOLEJ UNIVERSITI SAINS DAN
TEKNOLOGI MALAYSIA (KUSTEM)

By

Elia Aznida Zakaria

Research Report submitted in partial fulfillment
of the requirements for the degree of
Bachelor of Applied Science (Biodiversity Conservation and Management)

Department of Biological Sciences
Faculty of Science and Technology
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
2006

This project should be cited as:

Elia, A. Z. 2006. Avifauna at Coastal Area at Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM). Undergraduate thesis, Bachelor of Applied Science in Biodiversity Conservation and Management, Faculty of Science and Technology, Kolej Universiti Sains dan Teknologi Malaysia, Terengganu.46p.

No part of this project report may be produced by any mechanical, photographic, or electronic process, or in the form of phonographic recording, nor may it be stored in a retrieval system, transmitted, or otherwise copied for public or private use, without written permission from the author and the supervisor(s) of the project.

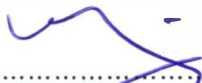


**JABATAN SAINS BIOLOGI
FAKULTI SAINS DAN TEKNOLOGI
KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA**

**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: AVIFAUNA AT COASTAL AREA AT KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA (KUSTEM) oleh Elia Aznida Zakaria no. matrik: UK 8022 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sabahagian daripada keperluan memperoleh Ijazah Sarjana Muda Sains Gunaan Pemuliharaan dan Pengurusan Biodiversiti, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

Disahkan oleh:


.....

Penyelia Utama

Nama: En Wong Chee Ho **WONG CHEE HO**

Cop Rasmi:

**Pensyarah
Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu.**

Tarikh: 26/4/06


.....

Ketua Jabatan Sains Biologi

Nama: Prof. Madya Dr. Nakisah Bt. Mat Amin

Cop Rasmi:

PROF. MADYA DR. NAKISAH BT. MAT AMIN

**Ketua
Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu.**

Tarikh: 26/4/06

ACKNOWLEDGEMENTS

First of all, I would like to thank God. To my supervisor, Mr. Wong Chee Ho who has generously shared his knowledge, guidance, ideas and advices throughout the study and also exposing me to the meaning of scientific research.

I am also grateful and thankful to the Faculty of Science and Technology, KUSTEM for allowing me to use the facilities provided. To Mr. Razali Salam and Mr. Mohammad Embong, thank you for the cooperation and helps given throughout the six months, especially when I encountered problems in order to finish my project.

To my roommates and friends, I thank you all for being there to give ideas and supportive. Last but not least, to everyone who was involved direct or indirectly during the completion of this project, I thank you for your support and helps.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	viii
LIST OF APPENDICES	ix
ABSTRACT	x
ABSTRAK	xi
CHAPTER 1 INTRODUCTION	1
1.1 Introduction	1
1.2 Research Justification	2
1.3 Objectives	2
CHAPTER 2 LITERATURE REVIEW	3
2.1 Evolution of birds	3
2.2 Classification of birds	3
2.3 Characteristic of birds	5
2.4 The important of Birds	6
2.5 Avifauna Researches in Peninsular Malaysia	7
2.6 Conservation of Birds	7

CHAPTER 3 METHODOLOGY	9
3.1 Study area	9
3.2 Study period	9
3.3 Point observation method	9
3.4 Data analysis	10
CHAPTER 4 RESULT	12
4.1 The overall result	12
4.2 Monthly observation	16
4.3 Daily observation	18
4.4 Bird species according to observation hour	26
4.5 Birds Species according to Status, Occurrence and Law Protection	26
4.6 The New Species Accumulative Curve	27
CHAPTER 5 DISCUSSION	29
5.1 The adaptability of Common Birds Observed	29
5.2 The Least Observed Birds at Coastal Area in KUSTEM	30
5.3 Variation in Number of Species Observed according to Month	31
5.4 Daily Observation	31
5.5 The Effect of Observation Hour	31
5.6 Food Abundance	32

5.7	New Species Accumulative Curve	32
5.8	Migratory Birds	33
CHAPTER 6 CONCLUSION		34
REFERENCES		35
APPENDICES		37
CURRICULUM VITAE		46

LIST OF TABLE

Table		Page
4.1	List of least observed bird species at coastal area at KUSTEM	17
4.2	List of species observed only in certain months at coastal area	21

LIST OF FIGURES

Figure		Page
3.1	Example of data sheet	11
4.1	The number of bird species present in each different bird families	13
4.2	The ten most common bird species at coastal area according to number of data entries	14
4.3	The ten most common bird species at coastal area according to number of observation days	15
4.4	The total number of bird species observed in each month of observation	20
4.5	The number of species observed during observation according to day	22
4.6	The number of species occurred according to observation hour	23
4.7	The percentages of bird species at coastal area according to their status	24
4.8	The percentages of bird species at coastal area according to the incidence of occurrence	25
4.9	The percentages of bird species at coastal area according to protection by law	26
4.10	The new species accumulative curve of coastal area birds	29

LIST OF ABBREVIATIONS

KUSTEM	Kolej Universiti Sains dan Teknologi Malaysia
MNS	Malaysian Nature Society
PERHILITAN	Department of Wildlife and National Parks

LIST OF APPENDICES

Appendix	Page
A The figures of bird species observed at coastal area at KUSTEM	38
B Study area at coastal area at KUSTEM	41
C Glossary of Bird Names, Status, Occurrence and Protection of Wildlife Act 1972 for Bird Species Found at coastal area in KUSTEM	42
D Species of birds observed at coastal area at KUSTEM according to months.	44

ABSTRACT

An avifauna richness study was carried out for six months at coastal area at Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM), Terengganu, starting from August 2005 to January 2006. The main objective of this study is to identify the birds species at coastal area in KUSTEM. Direct observation method was used to conduct this study. A total of 35 species representing 22 families were recorded. *Alcedinidae* has the highest number of species observed, with five species. Five of the most common bird species observed includes Peaceful Dove (*Geopelia striata*), Common Myna (*Acridotheres tristis*), Eurasian Tree Sparrow (*Passer montanus*), Yellow-Vented Bulbul (*Pycnonotus goiavier*) and Asian Glossy Starling (*Aplonis panayensis*). October was the peak for number of species observed with 26 species. For daily observation, the highest number of species observed was on the 12th day with 19 species. Meanwhile, the highest number of species observed at 0710 with 24 species respectively. A total of 26 species (74%) are categorized as resident and common birds. 25 species (71%) of birds observed are Totally Protected by the Protection of Wildlife Act 1972. The high bird richness at coastal area in KUSTEM may be due to several factors such as habitat, whether, bird behaviors, lack of human activities and especially food abundance.

KAJIAN KE ATAS BURUNG DI KAWASAN PANTAI DI KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA

ABSTRAK

Kajian ke atas burung di kawasan pantai dan paya bakau di Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM), Terengganu, telah dijalankan bermula daripada Ogos 2005 sehingga Januari 2006. Tujuan utama kajian ini adalah untuk mengetahui spesies burung di kawasan kajian tersebut. Kaedah pemerhatian langsung telah digunakan. Sejumlah 35 spesies burung daripada 22 famili telah direkodkan. Famili *Alcenidae* mempunyai jumlah tertinggi, iaitu sebanyak lima spesies. Lima spesies burung yang paling biasa ditemui termasuk Peaceful Dove (*Geopelia striata*), Common Myna (*Acridotheres tristis*), Eurasian Tree Sparrow (*Passer montanus*), Yellow-Vented Bulbul (*Pycnonotus goiavier*) dan Asian Glossy Starling (*Aplonis panayensis*). Bulan Oktober mencatatkan jumlah spesies tertinggi yang dijumpai iaitu sebanyak 26 spesies burung. Bagi pemerhatian harian, hari ke-12 mencatatkan jumlah spesies tertinggi dijumpai iaitu 19 spesies. Sementara itu, jumlah tertinggi spesies dicatatkan pada pukul 0710 berjumlah 24 spesies. Sebanyak 26 spesies (74%) merupakan burung tempatan dan burung yang biasa ditemui di negara ini. Manakala, 25 spesies (71%) pula adalah dilindungi sepenuhnya oleh Akta Perlindungan Hidupan Liar 1972. Jumlah kekayaan burung yang tinggi di kawasan kajian adalah berkait rapat dengan beberapa faktor seperti jenis habitat, cuaca, kelakuan burung, kegiatan manusia yang sedikit dan mempunyai kelimpahan makanan yang banyak.