[redacted]

0/3449

1100046073

Perpustakaan
Universiti Malaysia Terengganu (UMT)

Universiti Malaysia Terengganu
Perpustakaan

LP 1 FST 5 2006

1100046073
Ectoparasites composition of bat at residential area of KUSTEI
/ Aina Mutharah Mohd Yusoff.

PERPUSTAKAAN
KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA
21030 KUALA TERENGGANU

1100046073

Lihat sebelah

HAK MILIK
PERPUSTAKAAN KUSTEM

Perpustakaan
Universiti Malaysia Terengganu (UMT)

ECTOPARASITES COMPOSITION OF BAT AT RESIDENTIAL AREA OF KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA (KUSTEM)

By

Aina Mutharah binti Mohd Yusoff

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:

Aina Mutharah, M.Y.2006.The composition of ectoparasites on bats at residential area of 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.67p.

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.

1100046073

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:ECTOPARASITES COMPOSITION OF BATS AT RESIDENTIAL AREA OF KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA (KUSTEM) oleh Aina Mutharah binti Mohd Yusoff, no. matrik: UK8119 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains Gunaan-Pemuliharaan Dan Pengurusan Biodiversiti, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

Disahkan oleh:

.....

Penyelia Utama:

Nama: WONG CHEE HO

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

Tarikh: 3/5/06

.....

Ketua Jabatan Sains Biologi

Nama:

Cop Rasmi:

PROF. MADYA DR. NAKISAH BT. MA
Ketua
Jabatan Sains Biologi
Fakulti Sains dan Teknologi
Kolej Universiti Sains dan Teknologi Malaysia
(KUSTEM)
21030 Kuala Terengganu.

Tarikh: 4/5/06

ACKNOWLEDGEMENT

First of all, I would like to express my deepest thanks to God the Almighty for His blessing, guidance and the strength that He had given to me until I could accomplish my final year project.

I also would like to express my gratitude to Mr.Wong Chee Ho as my supervisor for the opportunity, ideas, patience and his advice in guiding me to complete this project. Beside that, I would like to thanks the laboratory assistants in Histology Laboratory, Mr.Muhammad bin Embong, for his kindness and land a hand in helping during sampling and laboratory session.

My special thanks and and warmest love goes to my parents, Mr.Mohd Yusoff bin Abdul Hamid and Mrs.Fauziah binti Shamsudin , for their supportive, patience, love and caring that I really need as my strength to endure the journey of my life. Not forget, to my understanding and loving siblings. I love you all!

In addition, I would like to dedicated special thanks to Intan Nurlemsha, Hazihani, Nurul Hanani, Nursyazana, Joann, Suriya and Lee Choon Pei for their cooperative, ideas, information and help during accomplishment of this project and to everyone that involved in this project either directly or indirectly that I did not mention above, I really appreciate all your help and ideas until I complete my final year project. Only God may repay all your kindness. Thank you very much....

TABLE OF CONTENTS

Perpustakaan
Universiti Malaysia Terengganu (UMT)

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS/SYMBOLS

Abbreviation/Symbols

KUSTEM	Kolej Universiti Sains dan Teknologi Malaysia
CCD	Camera Colour Digital
%	Percentage
M	Male
F	Female
NP	Non-productive
L	Lactating
PL	Post lactating
A	Adult
J	Juvenile
R	Recapture

LIST OF APPENDICES

ABSTRACT

The study on the diversity of ectoparasites on bats at residential area of Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM) was conducted for five months, from September 2005 until January 2006, for five days monthly, respectively. The aims of this study are to study the distribution, diversity and examine the ectoparasites composition among different bats species. A total of 24 individuals of bats were captured, which were comprised of four species including *Cynopterus brachyotis, Cynopterus horsfieldii, Cynopterus sphinx* and *Scotophilus kuhlii* .The most infested bat was *C.sphinx* and *S.kuhlii* with 100% of infection rate. But, *C.brachyotis* had the highest number of bats species that was infested by ectoparasites. Ectoparasites were identified as *Argas* sp., *Nycteribia* sp.1, and *Nycteribia* sp.*2* .*Nycteribia* sp.1 was the most abundance of ectoparasites .Based on the gender of the host, *Nycteribia sp.2* showed preference on female, while, *Nycteribia sp.1* and *Argasid* showed preference on male.

KOMPOSISI EKTOPARASIT ATAS KELAWAR DI KAWASAN KEDIAMAN KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA.

ABSTRAK

Kajian mengenai kepelbagaian ektoparasit yang terdapat pada kelawar di kawasan kediaman Kolej Universiti Sains dan Teknologi Malaysia(KUSTEM)telah dijalankan selama lima bulan bermula daripada September 2005 hingga Januari 2006, dengan lima hari setiap bulan.Matlamat kajian ini adalah untuk mengkaji taburan,kepelbagaian serta memeriksa komposisi ektoparasit pada spesies kelawar yang berbeza.Sejumlah 24 ekor kelawar telah di tangkap,yang mana merangkumi empat spesies.Ini termasuklah spesies *Cynopterus brachyotis,C.horsfieldii,C. sphinx* dan *Scotophilus kuhlii. C. sphinx* dan *S.kuhlii* merupakan kelawar yang paling tinggi kadar jangkitan oleh ektoparasit dengan kadar jangkitan 100%.Tetapi, *C.brachyotis* merupakan spesies kelawar yang mempunyai bilangan kelawar yang paling banyak dijangkiti.Ektoparasit yang ditangkap dikenalpasti sebagai *Argas* sp,*Nycteribia* sp.1 dan *Nycteribia* sp.2 .*Nycteribia* sp.1 adalah ektoparasit yang paling kerap menjangkiti kelawar.Berdasarkan jantina perumah,*Nycteribia* sp.2 paling kerap menjangkiti kelawar betina,menakala, *Nycteribia* sp.1 dan *Argas* sp. merupakan ektoparasit yang paling kerap menjangkiti kelawar jantan.