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2020

QH: 4778

1100046088

Perpustakaan  
Universiti Malaysia Terengganu (UMT)

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1100046088

## Ectoparasite composition of bats at the garden areas of KUSTEM / Intan Nurlemsha Baharom.



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ECTOPARASITE COMPOSITION OF BATS AT THE GARDEN AREAS OF KOLEJ  
UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA (KUSTEM)

By

Intan Nurlemsha binti Baharom

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 SANS DAN TEKNOLOGI MALAYSIA  
2006

This project should be cited as:

Intan Nurlemsha, B. 2006. Ectoparasite composition of bats at the garden areas 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. 70p.

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PENGAKUAN DAN PENGESAHAN LAPORAN  
PROJEK PENYELIDIKAN I DAN II

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: ECTOPARASITE COMPOSITION OF BATS AT THE GARDEN AREAS OF KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA (KUSTEM) oleh Intan Nurlemsha binti Baharom, no. matrik: UK8014 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.

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## **ACKNOWLEDGEMENT**

First of all, I would like to express the greatest thanks to God for the blessing and His graciousness in guiding me through the journey of life. I am also dedicated my greatest thanks to my supervisor Mr. Wong Chee Ho for the opportunity, trustiness and guidance he had given me to complete the project.

I would like to thank all the laboratory assistants in Histology Laboratory especially Mr. Muhammad bin Embong for their help during sampling and laboratory session. I also would like to my partner Miss Suria Krishnan for her cooperation during the sampling period.

Most importantly, greatest appreciation to my parents for their support, love and caring, my sisters and brothers for their support and encouragement. Not forgotten to my lovely person Hadi for his help and for being such an understanding person, my brother Fazli for his support and my best buddies, Zinn, Sara, Aina, Yan, Anne, Faza, Wadil and Fie for being my most supportive friends. I also appreciate my coursemate of Bachelor of Applied Science (Biodiversity Conservation and Management) 2003-2006. Thank you for being cooperative, helpful and sharing thoughts and joys during the project. To everyone involved in my project that I did not mention above, I really appreciate all your help and thoughts as I complete my project, successfully. May God bless you and repay all your kindness. Thanks a lot!

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## **LIST OF ABBREVIATIONS/SYMBOLS**

KUSTEM	-	Kolej Universiti Sains dan Teknologi Malaysia
%	-	Percentage
Nr	-	Number
M	-	Male
F	-	Female
NR	-	Non-reproductive
L	-	Lactating
PL	-	Post lactating
A	-	Adult
J	-	Juvenile
R	-	Recapture

## **ABSTRACT**

A six month study was conducted on the ectoparasites composition of bats at the garden areas of Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM). The study was carried out from August 2005 to January 2006. The objectives of this study were to examine the ectoparasite composition in different species of bats and to enrich the checklist of ectoparasites on bats at KUSTEM. A total of 106 bats from six different species was captured including *Cynopterus brachyotis*, *C. hosfieldii*, *C. sphinx*, *Eonycteris spelaea* and *Murina rozendaali*. Four species of ectoparasite which belong to three different genera were collected including *Argas* sp., *Ctenocephalides* sp. and *Nycteribia* spp. The highest parasite prevalence rates found in *C. sphinx*. The most abundant of ectoparasite was *Nycteribia* sp.1. Females bat noted the high prevalence rate than males.

**KAJIAN KOMPOSISI EKTOPARASIT PADA KELAWAR DALAM KAWASAN  
TAMAN DI KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA**  
**(KUSTEM)**

**ABSTRAK**

Satu kajian selama enam bulan telah dijalankan untuk mengkaji komposisi ektoparasit pada kelawar dalam kawasan taman di Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM). Kajian ini telah dijalankan dari bulan Ogos 2005 hingga Januari 2006. Objektif kajian ini adalah untuk mengkaji kepelbagaian ektoparasit, mengenalpasti komposisi ektoparasit pada jenis kelawar yang berbeza dan menambahkan jumlah maklumat tentang jenis spesis ektoparasit yang terdapat di KUSTEM. Sejumlah 106 ekor kelawar dari spesis berlainan telah ditangkap. Spesis-spesis yang diperolehi adalah *C. brachyotis*, *C. hosfieldii*, *C. sphinx*, *E. spelaea* dan *M. rozendaali*. Empat spesis ektoparasit dari tiga genus yang berbeza telah dikenalpasti iaitu *Argas* sp., *Ctenocephalides* sp. dan *Nycteribia* spp. *C. sphinx* adalah spesis yang mempunyai kadar kelaziman ektoparasit yang tinggi. Taburan ektoparasit dijumpai paling tinggi *Nycteribia* sp.1. Kelawar betina mencatatkan kadar kelaziman yang tinggi berbanding kelawar jantan.