

REPORT ON FAUNA AT RESIDENTIAL AREA OF KELA
UNIVERSITY SAINS DAN TEKNOLOGI MALAYSIA

CASE STUDY REPORT

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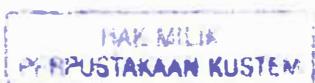


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CHIROPTERAN FAUNA AT RESIDENTIAL AREA OF KOLEJ UNIVERSITI SAINS
DAN TEKNOLOGI MALAYSIA (KUSTEM), TERENGGANU

By

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

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: CHIROPTERAN FAUNA AT RESIDENTIAL AREA OF KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA (KUSTEM), TERENGGANU oleh Nurul Hanani Binti Abdul Halim no. matrik: UK 7894 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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LIST OF ABBREVIATIONS / SYMBOLS

°	-	degree
%	-	percentage
no.	-	number
BCI	-	Bats Conservation International
IUCN	-	International Union for the Conservation Nature
WWF	-	World Wildlife Fund

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ABSTRACT

A study of bats diversity was conducted at residential area of Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM) in 25 days within five months, starting from September 2005 until January 2006. The objectives of this study were to examine diversity of bat species and to enrich the inventory data of bat species for conservation purpose at residential area of KUSTEM. Eight mist nets were used as the capturing device. Species identification was based on the forearm measurement, weight, sex, maturity status and their reproduction. Bats were released after identification. A total of 24 individual bats were captured comprising of two families and four species. Three species were frugivorous bats, *Cynopterus brachyotis*, *C. horsfieldii* and *C. sphinx* from the family Pteropodidae. One insectivorous species, *Scotophilus kuhlii* was also captured from the family Vespertilionidae. *C. brachyotis* was the most common captured species (79.2%). Four of individuals that recaptures were recorded. Shannon-Weiner index is 0.7302 while Simpson Index is 0.3572. Overall, the species diversity of bats in residential area of KUSTEM were low due to the duration of study, types of capture methods, viability source of foods, weather condition and human activity.

**KEPELBAGAIAN SPESIES KELAWAR DI KAWASAN PERUMAHAN
SEKITAR KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI MALAYSIA
(KUSTEM), TERENGGANU.**

ABSTRAK

Kajian telah dijalankan bagi mengkaji kepelbagaian spesies kelawar di kawasan perumahan sekitar Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM) selama 25 hari dalam tempoh lima bulan yang bermula daripada bulan September 2005 hingga Januari 2006. Objektif kajian ini adalah untuk mengenalpasti kepelbagaian spesies kelawar dan memperbaharui inventori data kepelbagaian spesies kelawar di kawasan perumahan sekitar KUSTEM bagi tujuan pemuliharaan spesies. Kaedah penangkapan menggunakan sebanyak lapan jaring kabus. Pengecaman spesies adalah berdasarkan ukuran lengan, berat, jantina, status kematangan dan peringkat pembiakan kelawar. Kelawar yang ditangkap dilepaskan semula selepas pengecaman. Sejumlah 24 ekor kelawar telah ditangkap, terdiri daripada dua famili dan empat spesies. Tiga spesies dari famili Pteropodidae, kelawar pemakan buah iaitu *Cynopterus brachyotis*, *C. horsfieldii* dan *C. sphinx*. Satu spesies kelawar pemakan serangga telah ditangkap iaitu *Scotophilus kuhli* dari famili Vespertillionidae. Dalam kajian ini, *C. brachyotis* merupakan spesies dominan dengan tangkapan tertinggi sebanyak 79.2%. Empat ekor kelawar ditangkap semula direkodkan. Indeks kepelbagaian iaitu Shannon – Weiner adalah 0.7302 sementara Simpson adalah bernilai 0.3572. Secara keseluruhannya, kepelbagaian spesies di kawasan perumahan sekitar KUSTEM adalah rendah disebabkan tempoh kajian, jenis alat tangkapan, kebolehdapatan makanan, keadaan iklim dan aktiviti manusia.