

DIVERSITY OF SMALL MAMMAL AT KOLEJ UNIVERSITI
SAINS DAN TEKNOLOGI MALAYSIA (KUSTEM)
CAMPUS AREA.

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2005

**DIVERSITY OF SMALL MAMMAL AT KOLEJ UNIVERSITI SAINS DAN
TEKNOLOGI MALAYSIA (KUSTEM) CAMPUS AREA.**

BY

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**JABATAN SAINS BIOLOGI
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**PENGAKUAN DAN PENGESAHAN LAPORAN
PROJEK PENYELIDIKAN I DAN II**

Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: Diversity of small mammal at Kolej Universiti Sains dan Teknologi Malaysia oleh Ruby Rozleen Binti Roslan, no. matrik: UK7029 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

FST	= Faculty of Science and Technology
IUCN	= International Union for Conservation of Nature and Natural Resources
KUSTEM	= Kolej Universiti Sains & Teknologi Malaysia
SEA	= South East Asia
U.S.A	= United States of America
WWF	= World Wide Fund for Nature
MMS	= Malaysia Meteorology Service

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List of small mammal captured

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SMALL MAMMALS DIVERSITY AT KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA (KUSTEM) CAMPUS AREA

ABSTRACT

A study on diversity of small mammals was carried out in August 2004 to January 2005 at Kolej Universiti Sains & Teknologi Malaysia (KUSTEM), Terengganu. The aim of this study was to document diversity of small mammal fauna. Six times small mammals sampling, with five consecutive trapping days around the campus area were conducted using small mammals cage traps and direct observation. A total of twelve (12) individuals belonging to five species of small mammal, were recorded in the campus area. The species are *Rattus rattus* (House Rat), *Rattus tiomanicus* (Malaysian Field Rat), *Paradoxurus hermaphroditus* (Common Palm Civet), *Callosciurus notatus* (Plaintain Squirrel) and *Lutra perspicillata* (Smooth Otter). All species recorded belong to four families namely Sciuiridae, Muridae, Viverridae and Mustelidae. December 2004 and January 2005 noted the highest species captured compared with the other month. Two individuals of *Rattus rattus* were recaptured throughout the sampling. The most dominant species was *Rattus rattus*. Overall, the diversity index of small mammal in this area is 0.80 while the Simpson's Index is 0.54. Plot 5 noted the highest species diversity. The estimated of small mammal population in this study area is 34.7. Topography, variations of vegetation, abundant of food and habitat adaptation are the most important factors in determining the species richness and diversity in each location.

ABSTRAK

Kajian ke atas kepelbagaian spesies mamalia kecil telah dijalankan pada bulaan Ogos 2004 sehingga Januari 2005 di Kolej Universiti Sains dan Teknologi Malaysia (KUSTEM), Terengganu. Tujuan kajian ini dijalankan adalah untuk pengumpulan data kepelbagaian mamalia kecil. Persampelan fauna mamalia kecil dijalankan sebanyak enam kali, setiap kali dengan lima hari penangkapan selama enam bulan berturut-turut di kawasan kampus dengan menggunakan kaedah perangkap sangkar dan pemerhatian secara langsung. Sejumlah 12 individu daripada lima spesies telah berjaya direkodkan di kawasan kampus. Ini termasuk *Rattus rattus* (Tikus Rumah), *Rattus tiomanicus* (Tikus Belukar), *Paradoxurus hermaphroditus* (Musang Pulut), *Callosciurus notatus* (Tupai Pinang) and *Lutra perspicillata* (Memerang Bulu Licin). Spesies – spesies yang direkodkan tergolong dalam empat famili iaitu Sciuridae, Muridae, Viverridae and Mustelidae. Persampelan pada bulan Disember 2004 dan Januari 2005 mencatatkan penangkapan tertinggi berbanding bulan – bulan lain. Sebanyak dua individu dari spesies *Rattus rattus* telah berjaya ditangkap semula sepanjang tempoh penyampelan. *Rattus rattus* adalah spesies yang dominan di kawasan kampus. Indeks kepelbagaian mamalia kecil di kawasan ini ialah 0.8 manakala indeks Simpson pula ialah 0.54. Kepelbagaian spesies yang tertinggi adalah direkodkan di Plot 5. Nilai anggaran populasi mamalia kecil di kawasan kajian ini adalah 34.7 Faktor – faktor seperti topografi, variasi vegetasi, kelimpahan makanan dan kesesuaian habitat adalah sangat penting dalam menentukan kepelbagaian spesies di setiap habitat.