

ECTOPARASITE COMPOSITION OF BATS AT SETU,
TERENGGANU

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FAKULTI SAINS DAN TEKNOLOGI
UNIVERSITI MALAYSIA TERENGGANU
2007

ECTOPARASITE COMPOSITION OF BATS AT SETIU, TERENGGANU

By

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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
UNIVERSITY MALAYSIA TERENGGANU

2007

1100051196

This project should be cited as:

Chan, S. E. 2007. Ectoparasite composition of bats at Setiu, Terengganu. Undergraduate thesis, Bachelor of Applied Science in Biodiversity Conservation and Management, Faculty of Science and Technology, Universiti Malaysia Terengganu, Terengganu. 111p.

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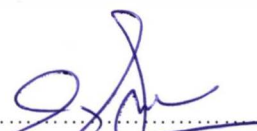
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ACKNOWLEDGEMENTS

Foremost, I wish to express my deepest gratitude to Mr. Wong Chee Ho, as my supervisor, for his kindness for giving me the opportunity to carry out this final year project. I thank for his advices, support and encouragement throughout the duration of this project.

Besides that, my grateful thanks to Mr. Muhammad Embong, and my friends Miss Or Oi Ching, Mr. Christopher Inbaraja s/o Rajakumar and Miss Chang Kew Fong for their practical assistance in the fieldwork. Also, Mr. Muhamad Razali Bin Salam for helping in identification of the plant species at Pulau Che Selamah at Setiu, Terengganu. Other than that, I thank to Dr. Chuah Tse Seng and Professor Madya Liew Hock Chark for their guidance on statistical analyses.

My special thanks to Mr. Salleh Ismail for his invaluable assistance in the confirmation of the identification of the ectoparasites and giving advices and suggestion that empowered my knowledge on ectoparasites. I will never forget, the co-operation given by Malaysian Meteorological Department in providing weather data. Last but not least, I am very much appreciated the supports given by WWF staff and Mr. Zeman in helping out in fieldwork while carrying out the study.

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LIST OF ABBREVIATIONS

A	Adult
B.	<i>Balionycteris</i>
C.	<i>Cynopterus</i>
E.	<i>Eonycteris</i>
eg.	Example
F	Female
F	Forearm
g	gram
J	Juvenile
L	Lactating
LL	Late Lactating
M	Male
m	meter
ml	mililiter
mm	milimeter
NR	Non Reproductive
P.	<i>Penthetor</i>
P	Pregnant
PL	Post Lactating
R	Recapture
spp.	Species
sp.	Species
W	Weight
%	Percent
°C	Degree Celsius

ABSTRACT

A study of bat ectoparasites was carried out at Pulau Che Selamah which is located at Setiu, Terengganu from August 2006 until January 2007. The objectives of this study were to determine the bat ectoparasites composition, to compare prevalence and abundance of ectoparasite among the bat species and to establish a checklist of the ectoparasites. Bats were captured by using mist-net in order to obtain ectoparasites. Ectoparasites were removed from bats and preserved in 70% alcohol for identification purpose. A total of 56 individual of bats were captured, including *Balionycteris maculata*, *Eonycteris spelaea*, *Cynopterus brachyotis* and *Penthetor lucasi*. From those bats, a total of 357 individual ectoparasites were collected which represented five orders, including *Ctenocephalides* sp., Streblid, Nycteribiid, Argasid, Myobiid mite, Spinturnicid mite, *Ancystropus* spp. and *Meristaspis* spp. The maximum ectoparasites' infested index was attained in Argasid (1.63) while the minimum was indicated by Myobiid mite (0.05). *Eonycteris spelaea* was the only bat species that infested by all kinds of ectoparasites while *Cynopterus brachyotis* and *Penthetor lucasi* were infested by only two kinds of ectoparasites, whereas *Balionycteris maculata* was not infested by any ectoparasites. This study successfully produced a checklist of bat ectoparasites at Setiu and prevalence, mean intensity, as well as abundance of each kind of ectoparasites on bat examined were reported. Further study need to be carried out to update the checklist in order to have a more comprehensive directory of ectoparasites in Terengganu and to obtain more information on various relevant aspects such as host-parasites relationship and parasites' biology and ecology.

KOMPOSISI EKTOPARASIT PADA KELAWAR DI SETIU, TERENGGANU.

ABSTRAK

Satu kajian ke atas ektoparasit kelawar telah dijalankan di Pulau Che Selamah yang terletak di Setiu, Terengganu mulai dari Ogos 2006 hingga Januari 2007. Objektif kajian ini adalah untuk menentukan komposisi ektoparasit kelawar, membandingkan kelaziman dan kelimpahan ektoparasit di antara spesies kelawar dan menghasilkan suatu senarai semak ektoparasit. Kelawar ditangkap menggunakan jaring kabus untuk mendapatkan ektoparasit. Ektoparasit diasingkan daripada kelawar dan diawet di dalam alkohol 70% untuk tujuan pengecaman. Sejumlah 56 individu kelawar ditangkap, termasuk *Balionycteris maculata*, *Eonycteris spelaea*, *Cynopterus brachyotis* dan *Penthetor lucasi*. Daripada kelawar ini, sejumlah 357 individu ektoparasit dikutip yang mewakili lima order, termasuk *Ctenocephalides* sp., Streblid, Nycteribiid, Argasid, hama Myobiid, hama Spinturnicid, *Ancyrostropus* spp. and *Meristaspis* spp.. Indeks jangkitan ektoparasit maksima diperolehi di dalam Argasid (1.63) manakala nilai minimum ditunjukkan oleh hama Myobiid (0.05). *Eonycteris spelaea* merupakan satu-satunya spesies kelawar yang dijangkiti oleh kesemua jenis ektoparasit manakala *Cynopterus brachyotis* dan *Penthetor lucasi* hanya dijangkiti oleh dua jenis ektoparasit sahaja, manakala *Balionycteris maculata* tidak dijangkiti oleh sebarang ektoparasit. Kajian ini telah berjaya menghasilkan satu senarai semak ektoparasit kelawar di Setiu dan kelaziman, purata kekerapan dan juga kelimpahan setiap jenis ektoparasit pada kelawar yang diperiksa dilaporkan. Kajian lanjut perlu dijalankan bagi mengemaskini senarai semak supaya boleh menghasilkan direktori ektoparasit di Terengganu yang lebih komprehensif dan untuk memperolehi lebih banyak maklumat dari pelbagai aspek seperti perhubungan perumah-parasit dan biologi dan ekologi parasit.