

ETHOLOGICAL STUDY ON THE DIURNAL ACTIVITIES OF
WHITE-HANDED GIBBON (*Hyalobates lar*) IN
ISLAND ENCLOSURE AT MALACCA ZOO

VIOLA SUBHASHINI PETERS

DEPARTMENT OF BIOLOGICAL SCIENCE
FACULTY OF SCIENCE AND TECHNOLOGY
UNIVERSITY PUTRA MALAYSIA TERENGGANU
TERENGGANU

2001

PERPUSTAKAAN
UNIVERSITI PUTRA MALAYSIA TERENGGANU

1100024504

LP 16 FST 3 2001



1100024504

Ethological study on the diurnal activities of white-handed gibbon (*Hyalobates lar*) in Island Enclosure at Malacca Zoo / Viola Subhashini Peters.



1100024504

PERPUSTAKAAN

KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA
(KUSTEM)

dn 893

Lp

16

FST

D

Pengarang <i>Peters, Viola.</i>	No. Panggilan		
Judul			
Tarikh	Waktu Pemulangan	Nombor Ahli	Tanda tangan
			2001

tlc
11/3

Lp
16
FST
3
2001

**ETHOLOGICAL STUDY ON THE DIURNAL ACTIVITIES OF
WHITE-HANDED GIBBON (*Hylobates lar*) IN ISLAND ENCLOSURE
AT MALACCA ZOO**

BY

**VIOLA SUBHASHINI PETERS
(UK 1681)**

**A research project in partial fulfillment of the requirements for the
Degree of Bachelor of Science (Hons)**

**FACULTY OF SCIENCE AND TECHNOLOGY
UNIVERSITI PUTRA MALAYSIA TERENGGANU
KUALA TERENGGANU
MALAYSIA**

2000/01

This project should be cited as follows:

Viola. S.P. 2000. Ethological Study On The Diurnal Activities Of White-Handed Gibbon
(Hylobates lar) In Island Enclosure At Malacca Zoo.44p.

No part of this project may be reproduced by any mechanical, photographic, or electronic process, 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.

TTO0054204

ACKNOWLEDGMENT

I would like to express my sincere gratitude to both my supervisor and co-supervisor, Dr. Michael Efferdy and Abdil Wahid from Department Of Biological Sciences, Universiti Putra Malaysia, Serdang and Dr. Razzaq Muzen Abdellatif from Institute For Marine Environmental Engineering, Universiti Putra Malaysia, Serdang for their guidance in conducting me throughout my project work. Thank you very much for your advice and kind assistance. Truly this project would not be a success.....Specially dedicated to my mom, dad, brothers and loved ones.....

Thank You All for your moral support and Love you'll very much.

Also I would like to thank the Director of Graduate School and all the members of the Research Ethics Committee for giving my application to do my PhD.

My thanks go to my husband and son that you have supported me for last 6 years and I spent all the time in my family and my research work in balancing the two responsibilities. My husband and son have been always supporting me in my research work. Also I would like to thank my supervisor Dr. Michael Efferdy and co-supervisor Dr. Razzaq Muzen Abdellatif for their support and guidance during my research work. They have always been there to help me in my research work. Thank you guys for your patience and understanding towards my research work. I am very happy to have such a wonderful family always by my side. Finally thank the completion of my project, first I would like to thank God who had the spirit continue staying in the book with me. Next I would like to thank my supervisor Dr. Michael Efferdy and co-supervisor Dr. Razzaq Muzen Abdellatif for their support and guidance during my research work.

Lastly, I would like to convey my deepest gratitude to Dr. Abdil Wahid Abdololong who had kindly look over his Scary Tropical Diseases which helped me to capture such beautiful notes of my subjects during my period of study at Malacca Zoo. Once again Thank You All.

ACKNOWLEDGEMENT

I would like to extend my sincere gratitude to both my supervisor and co-supervisor, Dr. Mohd.Effendy Abdul Wahid from Department Of Biological sciences, Universiti Putra Malaysia Terengganu and Dr. Razeem Mazlan Abdullah from Malacca Zoo for their endurance in assisting me throughout my project work. Thank you very much for your advice and kind assistance. Truly, this project would not be a success without the patience and guidance from the both of you. I also wish to convey my appreciation to Mr. Noorazlan B. Mohd Noor, the animal record keeper of Malacca zoo, who had extended my knowledge with information regarding the subject of my observation, also not forgetting, the director of Malacca zoo and to all the curators of the zoo for their warm hospitality during my entire stay at the zoo.

My heartiest gratitude and a big thank you goes especially to my best friends Prabha and Devan who had being very helpful in answering to my needs regarding my project. This manuscript could not have been completed without the moral support from the both of you. Thank you guys for your patience and understanding. Also to my best buddy Santhi whom always kept me company throughout the completion of my project. Not forgetting my friend Onie who had also spent months staying in the zoo with me. Nice hanging around in the zoo with you.

Lastly, I would like to convey my deepest gratitude to Dr. Abol Munafi Ambok Bolong who had kindly lend me his Sony Digital Camera which helped me to capture such beautiful shots of my subjects during my period of study at Malacca zoo. Once again Thank You All.

ABSTRAK

Satu kajian mengenai aktiviti harian populasi Ungka tangan putih dalam kurungan pada waktu siang telah dijalankan. Pemerhatian kajian telah dijalankan ke atas empat ekor ungka selama 42 hari berserta dengan 14 hari tambahan sebelum pemerhatian sebenar dijalankan pada 0700-1900 dengan menggunakan teknik penyampaian imbasan “Scan sampling” dalam jangka masa 5 minit bagi setiap kutipan data.

Hasil kajian menunjukkan bahawa kelakuan *Hylobates lar* didapati paling aktif pada waktu pagi jam 0700 dan pada sebelah petang selepas jam 1900 yang turut menyebabkan setiap aktiviti *Hylobates lar* adalah spesifik mengikut masa. Diketahui bahawa ungka tersebut menghabiskan masa sebanyak 8.69% pada waktu siang untuk bergerak, 13.1% untuk bergayut di atas pokok, 70.2% untuk berehat dan 7.69% makan. Juga turut diperhatikan bahawa *Hylobates lar* berehat secara individu dan bukan secara berkumpulan. Pernyataan ini hanya didapati benar untuk jantan dan anak ungka. Selain itu, didapati juga waktu makan ungka adalah tidak relatif dengan masa makanan dibekalkan. Walaubagaimanapun ungka tangan putih lebih gemar memilih makanan mengikut selera mereka sepetimana yang dinyatakan dalam habitat liar bahawa ungka tangan putih memang cenderung memilih makanan.

Selain daripada itu, aktiviti-aktiviti menarik yang lain juga turut di-dokumentasikan secara deskriptif. Secara umum, kelakuan ungka di dalam kurungan ini mempunyai perbezaan yang nyata mengikut fasa masa 0700-1900 yang turut membuktikan kelakuan semula jadinya di habitat liar. Data yang telah dikumpulkan dalam kajian ini boleh digunakan sebagai maklumat tambahan mengenai spesies *Hylobates lar*.

ABSTRACT

A study was conducted on the diurnal activities and the stereotype behaviours of the white-handed gibbon or *Hylobates lar* in captive in island enclosure. The study involved four gibbons as the core subject of this observation. The naturalistic observation was conducted for 42 days with an extra of 14 days prior to the actual observation in the diurnal period (0700-1900 hour). Scan sampling method was applied with an interval of five minutes.

Results showed that in captive, *Hylobates lar* were active at dawn and dusk which in other words mean that the *Hylobates lar* moved and rest at specific intervals in the day. The White-handed gibbon spent 8.69% of their daytime moving, 13.1% swinging, 70.2% resting and 7.69% feeding in captive. They were also noted to rest mostly as solitary individuals. This statement is only true for the male and young gibbon. Feeding time for these captive gibbons were found not to be congruent with the time food is provided. However, the gibbons show selectivity on the zoo diet they ingest whenever possible. Feeding selectively is a common feeding behavior performed in the wild.

Besides the activities stated above, other interesting activities by the captive White-handed Gibbons were also documented descriptively. Generally, the behaviors of these captive *Hylobates lar* indicates a very significant differences between the phases (0700-1900) which were also found to be quite similar to those in the wild. Therefore, the accumulated data collected for this study will subsequently serve as additional information to the species of *Hylobates lar*.