

ETHOLOGICAL STUDY ON THE DIURNAL ACTIVITIES OF  
SIAMANG (*Symphalangus syndactylus*) IN CAPTIVE  
AT MALACCA ZOO, MALACCA, MALAYSIA

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IN CAPTIVE AT MALACCA ZOO, MALACCA,  
MALAYSIA**

**BY**

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*This project report is submitted in partial fulfillment of  
the requirements for the Degree of Bachelor of  
Science (Hons.) in Biology*

**Faculty of Science and Technology  
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Specially dedicated to my loved ones... mom, dad, brothers, sisters and grandparents.

Your strength, patience and love have always been an inspiration to me. You were right mom, I could achieve whatever I want. Thanks for always being there for me...

' Nothing ventured, nothing gained '

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Special thanks goes to my fellow friend Yulia Putri who had also spent months staying in the zoo with me. Not forgetting Afiq, my best friend Nuradina, Fauziah and Kameral who had being helpful in answering to my queries regarding to this project. Also to all other friends and colleagues who have supported me overall in completion of this thesis.

Lastly, I would like to dedicate my humble piece of work to my loved ones, mom, dad, brothers, sisters, and also my grandparents. This manuscript and its work is completed and will have been achieved without the sacrifice, patience, understanding and moral support from all of you. Thank you very much.

## ACKNOWLEDGEMENTS

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## ABSTRACT

This report presented the result of the diurnal activities of a family group of siamang (*Symphalangus syndactylus*) in captive. The study involved 3(2:1) siamang as the subject and was carried out at the island enclosure in Malacca Zoo. The total time spent for each activity which are feeding, resting, travelling and other activities, in the diurnal period (0700-1900 hr) was analysed from the 40 days of data collection using scan sampling method at 5-minute interval.

In captive, siamang showed a variation throughout the 12-hour day and these different activities occur at certain hours of the day. Alert period of this siamang was from 0630 and 0700 hr to 1600 and 1830 hr. Siamang spent 62.8% of their day time resting, 19.8% moving, 11.2% feeding and only 6.2% for other activities. Generally, siamangs in captive were less active and were seen most inactive in the late evening. The intense feeding activity was only concentrated when food was provided between 1200 and 1300hr. Travelling occurred most in the mid-afternoon. Generally, the siamang usually slept in the emergent level, but spent most of the day in the medium level and descending to the low level during hottest part of the day.

Through this study, the diurnal activities of siamang in captive were indication of their biological rhythms. Since their foraging behavior has been altered and reduced, the siamang in captive rest more than performing other active activities compared to the wild. However the island enclosure in this study provided the stable environment for these siamang since there is no aggressive behavior were observed through this study. Their diurnal activities and spacing between individual were noted to be quite similar with the siamang in the wild.

## ABSTRAK

Kajian mengenai aktiviti harian telah dijalankan ke atas satu kumpulan keluarga siamang (*Symphalangus syndactylus*) yang melibatkan 3(2:1) ekor siamang yang ditempatkan di dalam kurungan seakan pulau di Zoo Melaka. Jumlah masa yang digunakan untuk melakukan setiap aktiviti seperti makan, berehat, bergerak serta aktiviti lain pada waktu siang (0700-1900) diperolehi daripada data yang dikutip selama 40 hari dengan menggunakan teknik penyampelan imbasan ('scan sampling') dengan selang masa 5 minit.

Di dalam kurungan siamang menunjukkan perbezaan aktiviti dan ia dilakukan pada waktu tertentu. Siamang didapati aktif dari jam 0630 ke 1830. Siamang menghabiskan 62.8% waktu siang untuk berehat, 19.8% untuk bergerak, 11.2% untuk makan dan 6.2% lagi untuk aktiviti lain. Secara amnya, siamang di dalam kurungan, adalah kurang aktif terutamanya pada waktu lewat petang. Aktiviti pemakanannya pula adalah tertumpu semasa waktu makanan dibekalkan (antara jam 1200 dan 1300 tengahari). Mereka kelihatan paling banyak bergerak pada waktu menjelang tengahari. Secara amnya, siamang selalunya kelihatan tidur di bahagian pokok yang paling tinggi, menghabiskan kebanyakan waktu siang harinya di kawasan pertengahan dan turun ke kawasan bawah pada waktu tengahari.

Daripada kajian ini, aktiviti seharian siamang adalah menunjukkan ritma biologikal mereka. Disebabkan kelakuan mencari makanan telah diubah dan dikurangkan, siamang ini lebih cenderung untuk berehat. Namun, kurungan seakan pulau ini membekalkan alam sekitar yang stabil kerana tiada perlakuan agresif diperhatikan sepanjang waktu kajian. Ritma seharian serta jarak antara individu juga adalah hampir sama dengan siamang di alam semulajadinya.