

DIURNAL ACTIVITY RHYTHMS OF CAPTIVE INDIAN  
MUNTJAC (*Muntiacus muntjak*) AT  
MALACCA ZOO, MALACCA, MALAYSIA

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CONFIRMATION AND APPROVAL FROM  
FINAL PROJECT REPORT

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FACULTY OF SCIENCE AND TECHNOLOGY  
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MALAYSIA**

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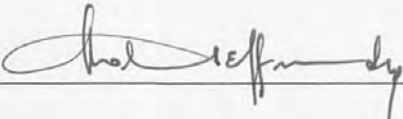
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It is certified that I have reviewed this project report and

- i. all corrections proposed by examiners were done
- ii. this report had in accordance with the format stated in *Panduan BIO 4999 (Projek)*, Department of Biological Sciences, Faculty Of Science And Technology, 1999/2000.

  
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## ABSTRACT

A study was conducted on the diurnal activity rhythm of a captive population of barking deer, *Muntiacus muntjak*. The study involved 8 (5.3) adult barking deer's as the subject, and was carried out at the 4068m<sup>2</sup>, fenced enclosure at Malacca Zoo, Malacca, Malaysia. Total time spent for each behaviour, which are the feeding, ruminating, resting and moving behaviour, in the diurnal period (0700 - 1900hr) was analysed from 30 continuous days of data collection. Scan sampling method was applied with an interval of 5 minutes.

The diurnal activity rhythm of these muntjacs is influenced by their feeding behaviour, whereas, their feeding behaviour is determined mainly by the enclosure management. Muntjacs are grazers in captivity, though they still show selectivity on food they ingest whenever possible. Feeding selectively is a common feeding behaviour performed in the wild. They are noted as crepuscular animals, an identification from their active period. Muntjacs are active at dawn and dusk.

There is a strong correlation between their resting and feeding behaviour. As the muntjacs reduce their feeding activity, their resting activity increases. They spend almost 50% of their diurnal period at rest and this activity peaks at mid afternoon. They distribute their time equally between active and passive activities in their captive environment.



## ABSTRAK

Kajian mengenai ritma aktiviti harian pada waktu siang telah dijalankan ke atas populasi kijang iaitu *Muntiacus muntjak* yang berada dalam kurungan. Subjeknya merupakan 8 (5.3) ekor kijang dewasa yang ditempatkan dalam kurungan berpagar berukuran 4068m<sup>2</sup> di Zoo Melaka, Melaka, Malaysia. Jumlah masa yang digunakan untuk melakukan setiap aktiviti seperti makan, mengunyah makanan, berehat dan bergerak pada waktu siang (0700-1900) diperolehi daripada data yang dikutip selama 30 hari berturut-turut dengan menggunakan teknik penyampelan imbasan 'scan sampling' pada jarak masa 5 minit untuk setiap kutipan.

Aktiviti pemakanan kijang mempengaruhi ritma kegiatannya hariannya dimana aktiviti pemakanan ini dipengaruhi oleh pengurusan kurungan haiwan tersebut. Kijang menunjukkan kecenderungan untuk meragut rumput didalam kurungan. walaubagaimanapun ia lebih gemar memilih makanan mengikut selera mereka seandainya diberi pilihan. Dalam habitat semulajadinya dihutan, kijang lebih cenderung memilih makanan. Kijang dikategorikan sebagai haiwan krepuskular berdasarkan waktu aktif mereka, iaitu pada waktu subuh dan senja.

Terdapat korelasi yang nyata antara aktiviti makan dan berehat. Apabila aktiviti makan berkurang, aktiviti berehat akan bertambah. Waktu tengahari merupakan waktu puncak berehat untuk kijang dimana hampir 6 jam daripada waktu siang digunakan untuk aktiviti ini. Pengagihan masa untuk aktiviti aktif dan pasif adalah sama rata dalam kurungan.