

ETHOLOGICAL STUDY ON THE NOCTURNAL ACTIVITIES OF
THE SPOTTED HYENA (*Crocuta crocuta*) IN
NIGHT SAFARI, SINGAPORE

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KOLEJ UNIVERSITI SAINS DAN TEKNOLOGI
UNIVERSITI PUTRA MALAYSIA TERENGGANU

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**ETHOLOGICAL STUDY ON THE NOCTURNAL ACTIVITIES OF THE
SPOTTED HYENA (*Crocuta crocuta*) IN
NIGHT SAFARI, SINGAPORE.**

**BY
ANG XIN LI
(UK 3649)**

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

**Department of Biological Science
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..... Specially dedicated to my loved one... dad, mum and my very lovely sisters...

Thank you, for your moral support, care and love... and... I love you all very much!

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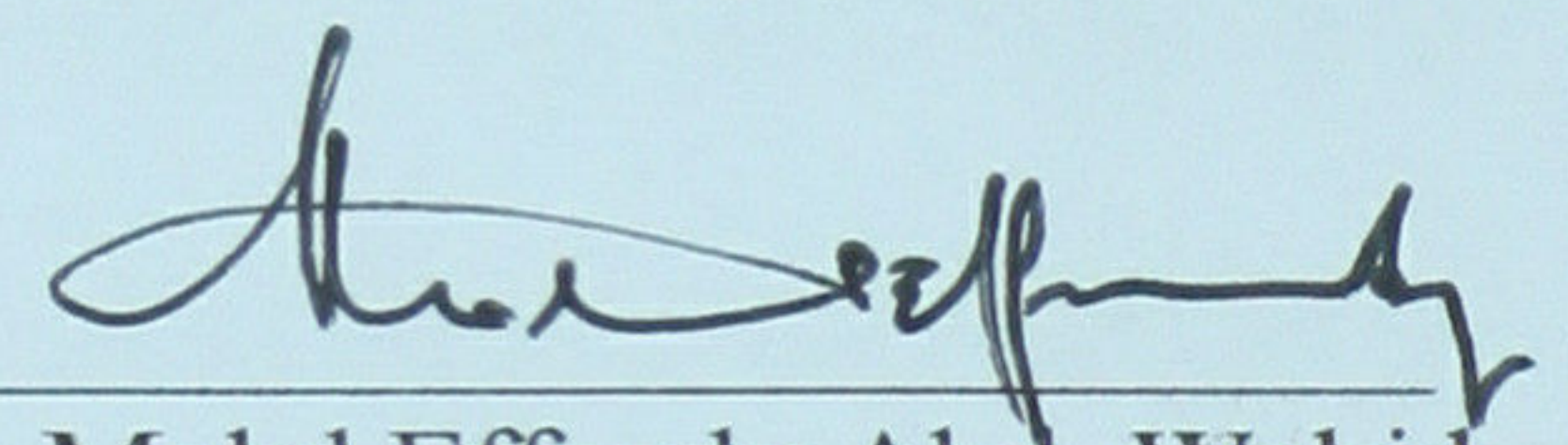
PENGAKUAN DAN PENGESAHAN

Adalah ini diakui dan disahkan bahawa laporan projek penyelidikan tahun akhir bertajuk **Ethological Study on the Nocturnal Activities of the Spotted Hyena (*Crocuta crocuta*) in Night Safari, Singapore** oleh **Ang Xin Li** no. matrik **UK 3649** telah dibaca dan semua pembetulan yang disarankan oleh pemeriksa-pemeriksa telah dibuat. Laporan ini dikemukakan kepada Jabatan Sains Biologi, sebagai kelayakan untuk memenuhi keperluan ijazah **Bachelor Sains (Kepujian) Biologi** di Fakulti Sains dan Teknologi, Universiti Putra Malaysia Terengganu (Kolej Universiti Sains dan Teknologi Malaysia).

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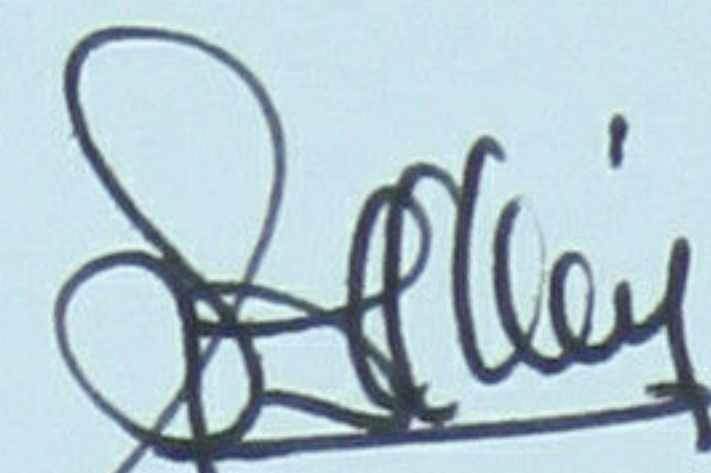


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ABSTRACT

The nocturnal activities and the stereotype behaviours of the spotted hyena (*Crocuta crocuta*) in captivity in the Night Safari of Singapore were studied. This study was conducted in two different areas: the yard and the exhibit enclosure. Five spotted hyenas, two females and three males were involved as the core subject of this observation. The naturalistic observation was conducted for 21 days with extra 14 days prior to the actual observation at the nocturnal time from 1600 to 2230. Scan sampling method was applied with an interval of five minutes. The results showed that in captivity, the *Crocuta crocuta* moved and rested at specific intervals during the daytime and they were seen to be most active in the evening and at night after 1900. The spotted hyena (*Crocuta crocuta*) spent 41.01% of their time roaming, 34.19% of their time idling, 9.52% of their time eliminating, 7.80% of their time sleeping and 7.48% of their time running in captivity. They were also noted to move and rest in a group as gregarious animals. Feeding time for these captive spotted hyenas were found congruent with the time when food was provided. The food was not provided by the zookeepers during the daytime in the yard. Food like bones and meat were provided during the night in the exhibit enclosure. Besides, other interesting activities of the spotted hyena such as feeding, welcoming ritual, grooming, stereotyping, chasing, vocalizing and fighting were also documented descriptively. Generally, behaviours of these captive spotted hyenas (*Crocuta crocuta*) indicated a very significant difference between the phases 1600-2230, 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 *Crocuta crocuta*.

ABSTRAK

Perlakuan *Crocota crocuta* pada waktu malam dalam kurungan telah diperhatikan dalam kajian ini. Lokasi kajian adalah di Night Safari, Singapura. Pemerhatian telah dijalankan di dua kawasan yang berbeza iaitu: dalam perkarangan dan dalam kawasan pameran. Pemerhatian telah dijalankan ke atas lima ekor *Crocota crocuta* selama 21 hari berserta dengan tambahan 14 hari sebelum pemerhatian sebenar dijalankan pada 1600-2230 dengan menggunakan teknik penyampaian imbasan "Scan sampling" dalam jangka masa lima minit bagi setiap kutipan data. Hasil kajian menunjukkan bahawa kelakuan *Crocota crocuta* didapati paling aktif pada waktu malam (jam selepas 1900). *Crocota crocuta* menghabiskan masa sebanyak 41.01% merayau, 34.19% masa untuk berleka, 9.52% masa untuk aktiviti penyahtinjaan, 7.80% masa untuk tidur dan 7.48% masa berlari dalam kurungan. Turut diperhatikan bahawa *Crocota crocuta* berehat dan bergerak secara berkumpulan dan bukan secara individu. Selain itu, turut didapati waktu makan bagi objek yang diperhatikan adalah relatif dengan masa makanan dibekalkan. Makanan tidak dibekalkan pada waktu siang tetapi diberikan oleh ahli zoo kepada *Crocota crocuta* pada waktu malam di kawasan pameran. Di samping itu, aktiviti-aktiviti seperti makan, sifat menyambut, memberus bulu, aktiviti yang diulangi berkali-kali, mengejar, bersuara dan melawan turut didokumentasi secara deskriptif. Secara umum, kelakuan *Crocota crocuta* di dalam kurungan ini mempunyai perbezaan yang nyata mengikut fasa masa 1600-2230 yang turut membuktikan kelakuan semulajadinya di habitat liar. Data yang telah dikumpulkan dalam kajian boleh digunakan sebagai maklumat tambahan mengenai spesies *Crocota crocuta*.