

## **Observation on predatory behaviour of captive Malayan tigers over the effect of illumination**

### **ABSTRACT**

Tigers in a natural life are nocturnal and preys during the dark. This study was performed to observe the effect of illumination on predatory behaviour of captive tigers. Furthermore, it was also to compare the agility of different individual, gender and age in catching their prey. The subjects were four captive tigers (N=4) in National Wildlife Rescue Centre (NWRC), Sungkai, Perak comprising of two males and two females Malayan tiger (*Panthera tigris jacksoni* and *Panthera tigris ssp.*) of different ages. This study was conducted at night for a dark setting while spotlights were used to provide illumination in each animal enclosure. Average time to reach for prey was faster without spotlight compared to with spotlight at  $21.44 \pm 4.70$  minutes and  $41.75 \pm 5.23$  minutes respectively ( $P < 0.05$ ). Individual variability in time response was obviously faster in dark setting, however it was only statistically significant in one wild-caught adult female tiger compared to all the other three tigers. Time response among gender and genetic trait (purebred or hybrid) of Malayan tigers were not significant, while age factor showed old-aged tiger has a significantly slower response in dark settings as compared to an average adult aged tiger at  $41.75 \pm 13.98$  minutes and  $14.67 \pm 2.39$  minutes respectively. In conclusion, research in captive settings showed the agility of the tiger approaching the preys were more rapid in dark settings, simulating a better night vision. Individual variability in the time response needs further investigation and these findings should be considered in designing feeding management in a captive setting to enrich and stimulate normal predatory behaviour.

**Keyword:** Malayan tiger; *Panthera tigris jacksoni*; Vision sensitivity; Agility; Night vision; Behavior; Nocturnal