

Optimal method to introduce faeces sample for olfactory-cues studies in Malayan tapir (*Tapirus indicus*)

ABSTRACT

Studying the hidden meaning behind the behaviours of wildlife can provide plenty of information for the betterment of their conservation. In this research, a preliminary study had been conducted to find out whether Malayan tapir (*Tapirus indicus*) (1) sniffs on the faeces or not and (2) to identify the optimal method of presenting the faeces samples. Five individuals of Malayan tapirs were contributed to this research as the samples donors and/or the subject. Basically, for this experiment several replicates of faeces samples were collected from the donors and frozen at -20°C , and the thawed samples were introduced to the subjects at different time slots (morning, afternoon and night). The results showed that tapirs exhibited both investigation and identification behaviours when sniff on faeces samples of other individuals. However, the sniffing was observed only during early in the morning and night when they were active due to their nocturnal characteristic. We found that, the location and the sample nature (i.e., thawed at sufficient period of time) had influenced the attractiveness of presented faeces sample to tapirs. Presenting the samples at feeding and sleeping areas increased the chance for the tapirs to sniff on samples and well thawed samples which emits strong odour drawn tapir's attention. Thus, it is recommended to take into account the above factors for further investigation related to the individual recognition through olfactory cues in Malayan tapir. The findings of this study could be incorporated in ex-situ conservation mainly during the selection of mating partners prior to physical introduction of the animals (strategy to avoid any injuries to tapir due to fighting and inbreeding in captivity).

Keyword: Malayan tapir; Olfactory-cues; Faeces; Individual recognition; Ex-situ conservation