**Tiger Dhole Scent Study**

**1.0 Introduction**

**2.0 Methodology**

2.1 Study subjects and Location

The study subjects comprised of 1.0 Malayan tiger and 6.0 Red Dholes, all of whom are housed at the Night Safari. Both these species were selected for this study as they will be on display at the upcoming Rainforest parks.

2.2 Data collection regime

Data collection was conducted during weekdays. Stipulated study time frames were set between 1pm to 530pm, as these timing are in line with the upcoming Rainforest parks’ operational hours. Although each stage (baseline/treatment) only required 15 minutes each for data collection, ample buffer time was given to offset changes to the sections’ workflow for that day and occurrences of inclement weather, as we anticipated that the study subjects would display shelter-seeking behaviors. Additionally, the presence of even minimal to moderate rainfall would dilute each scent type. Data for each treatment was collected for a total of three days each, resulting in a sample size of three

There was a total of two sampling sessions conducted each day per species. The first session was for the collection of baseline behavioural data whilst the second session was to collect data on behavioural changes upon introduction of the treatment for that day. To avoid any biased behaviours from the initial release into the exhibits, data collection for the baseline stage only commenced 5 minutes after the animals were released out into their exhibits. This was to offset the occurances of investigative behaviour during the baseline stage arising from the animals’ being shifted to an area of their enclosure that had been unused by the subjects for a substantial period of time.

2.3 Experimental Design

To examine the efficacy of the different scents used, two main responses will be collected. See more details below.

* + Duration of time spent engaged with stimuli
  + Spatial selection and patterns

2.3.1 Scents

A total of nine scents (Table/Appendix XXX) were used for this study. As this study was designed to aid us in identifying scents that the animals would engage with for substantial periods of time, easily obtainable scents were selected for this experiment.

2.3.2 Sampling Regime

Listed below are the scheduled timings for data collection of the baseline and treatment stages

* + Dholes:
    - 1300—1500 h (baseline & treatment)
    - Instantaneous scan sampling; 30 s per observation
  + Tigers:
    - 1500—1700 h (baseline & treatment)
    - Instantaneous focal sampling; 60 s per observation
  + Each sampling session constitutes 15 mins
  + Sampling windows are subject to weather conditions and sections workflow for the day
  + Each day, baseline sessions are conducted first before the treatment sessions
  + To avoid any biased behaviours from the initial release into exhibits, data collection will commence five mins after the studied animals are released.
* Treatment and baseline data collection for that day will be randomised (see Table 1)
* Data will be collected by the intern who will be trained beforehand.
* ZooMonitor will be used for data collection of behaviours (see Table 4)
* Frequency of visitation will be logged down separately on excel (see details below)
* Keepers will not be visible to the subjects as this could affect their behaviour