

Conclusion

Scent marks play an important role in the behaviour of adult males. Males showed a high interest to introduced feces from other animals.

They were able to discriminate between feces of other males and peat and showed an increase in scent marking behaviour as response. Feces and spray marks were used to overmark the feces of cycling females in the zoo. Feces of free-living territorial males were placed all over the territory, and were not used as boundary marks. In contrast to that spray marks were used to mark territorial borders.

This suggests that both feces and spray marks are important in transferring information between rhinoceros, but that they are used in a different context. Spray marks are used as territorial defence, while feces are more used as information about the presence of an animal and both mask the feces of cycling females. Introduction of feces into a zoo population is a useful tool to simulate the presence of other animals and to stimulate territorial behaviour in adult males. Shifting feces between different enclosure rather than rhinos could therefore be an alternative management strategy.

References

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A Program of Managed Breeding for the Sumatran Rhinoceros at the Sumatran Rhino Sanctuary, Way Kambas National Park, Indonesia

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The Sumatran rhinoceros is the most critically endangered of the rhinoceros species with less than 300 individuals estimated to remain in the wild, a decline of more than 50% of the total alive 10 years ago. Furthermore the international effort to establish a managed breeding population for future re-introductions, has had limited success. Since its start in 1985 almost three-quarters of the animals have died and pairing and breeding has been problematic, with only one advanced pregnancy to date (Cincinnati, USA). As part of an effort to improve the chances for propagation by providing a more natural environment and social structure, the Way Kambas Sumatran Rhino Sanctuary (SRS) was founded in 1995. The sanctuary comprises 100 ha of mature secondary rain forest, located within the 125,000 ha Way Kambas National Park, Sumatra, Indonesia. The SRS provides a minimum of 20 Ha of native habitat for each individual and allows mixing and separation of animals as required. The founder animals, 2 females from Indonesian zoos and a male from the UK, arrived in 1998. Recently one of the females, an old and un-reproductive animal, died. The remaining pair is in prime condition and has breeding potential. Animals are monitored continuously during daylight hours, and full-time during the breeding periods, and extensive data on activity patterns, feeding and reproductive behaviour have been collected over the past 3 years. Morphological parameters and faecal and urinary hormone excretion patterns have been used to determine reproductive status of the females. For the latter purposes, a hormone assay laboratory has recently been established at the Centre for Life Sciences Study, Bogor Agricultural University. Initial attempts at non-invasive semen collection have also been carried out. This poster presents the results of 3 years of research and briefly discusses the contribution of the SRS to the conservation efforts for the Sumatran rhino.

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