

**Human primate interaction and inter-species
relationship among the three diurnal primate
species in Mihintale sanctuary in Sri Lanka**

By

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DECLARATION BY THE CANDIDATE

The work described in this thesis was carried out by me under the supervision of Prof. Charmalie Nahallage, Department of Anthropology and Prof. Micheal A. Huffman, Primate Research Institute, Kyoto University, Japan and a report on this study has not been submitted in whole or in part to any university or any other institution for another Degree / Diploma

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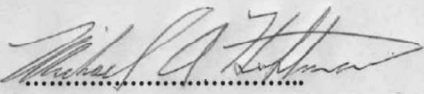
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Dedication

**I dedicate this to my parents, teachers, friends
and fellow members
without whom it was almost impossible
for me to complete
my work.**

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List of Abbreviations

A	Adult
a.m	Ante meridiem
E.E	Early Evening
E.M	Early Morning
I	Infant
J	Juvenile
L. E	Late Evening
L.M	Late Morning
p.m	Post Meridiem
SA	Sub Adult

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ABSTRACT

The mechanism of interspecific competition in primate communities remain largely unclear as relatively few studies have been done on this topic. Understanding and addressing conflict between vendors, visitors and primates due to provisioned food is of increasing conservation concern. The competition and nature of this behavior should vary across species, age–sex class and season according to specific physiological needs. In this dissertation, I present data and analyzes on inter-species competition, inter-species interaction, and identify the general differences in the activity budgets of three group of three different primate species; *S. priam thersites*, *S. vetulus* and *M. sinica*, inhabiting the Mihintale wildlife sanctuary over an 18-month period. Especially collected data on investigating 01) the inter-species interaction and the inter species competition between *S. priam thersites* and *S. vetulus*, 02) the influence of general difference in the activity budgets by age-sex classes and seasons of *S. priam thersites*, *S. vetulus* and *M. sinica*, 03) home range overlapping among the three species, and 04) the level of involvement by species in human-primate conflict. The results of the study also showed that interaction between the three primate species were infrequent. Most interactions that did occur happened between *S. priam thersites* and *M. sinica*. The key reasons for competition between species were identified as dietary competition and

dietary overlap. The home range size of the three species was significantly smaller than that reported previously and individual group sizes were substantially higher in Mihintale sanctuary than reported elsewhere. The inter-species competition has been correlated with the primate biomass. No inter-species interactions such as playing, grooming or aggression were observed between *S. priam thersites* and *S. vetulus*. Only *S. priam thersites* and *M. sinica* were involved in human-primate conflict at Mihintale. *S. vetulus* was never observed in any activity creating conflict with humans. The information obtained throughout the thesis was used to provide recommendations to vendors and visitors in order to reduce human-primate conflict and provide informed recommendations for responsible authorities for the purpose of conservation of three primates.

Key words : Interspecific, competition, Human-primate conflict, Conservation,