## (209)

## Dietary Composition and Foraging Habitat Selection of the Indian Pangolin (*Manis crassicaudata*) in a Tropical Lowland Forest-Associated Landscape in Southwest, of Sri Lanka

## Karawita H.<sup>1\*</sup>, Perera P.<sup>1,2</sup>, Dayawansa P.N.<sup>3</sup>, Dias S.<sup>4</sup>

<sup>1</sup>Department of Forestry and Environmental Science, University of Sri Jayewardenepura, Nugegoda, Sri Lanka

<sup>2</sup>IUCN SSC Pangolin Specialist Group, C/o Zoological Society of London, Regent's Park, London, United Kingdom

<sup>3</sup>Department of Zoology and Environment Sciences, University of Colombo, Colombo 03, Sri Lanka

<sup>4</sup>Department of Zoology and Environmental Management, University of Kelaniya, Kelaniya, Sri Lanka

\*hasithakarawita@gmail.com

## Abstract

Indian pangolins (Manis crassicaudata) is a nocturnal elusive mammal species with a wide distribution in the South Asian region. The species has become threatened all over its range countries due to hunting, poaching, trafficking and habitat destruction. Many of the captive breeding and rescue attempts has been unsuccessful due to the lack of scientific knowledge on the dietary ecology of the species. Hence, this study investigated the dietary spectrum of foraging habitat selection of the Indian pangolin in a tropical lowland forest-associated landscapes of Southwest Sri Lanka. We studied fived different types of foraging habitats of Indian pangolin i.e. forested habitat, rubber plantations, cinnamon cultivations, oil palm plantations, and teadominated home gardens. The foraging intensity were assessed using the signs of foraging activities ad faecal samples of pangolins gathered in five 10×10 m plots along ten transect in each habitat. Faecal samples were further subjected to microscopic analysis in the laboratory. Study results identified forested habitats as the most preferred foraging grounds of Indian pangolins followed by the rubber plantations, cinnamon, oil palm and tea dominated home gardens. The termites from the termitariaon ground and the termite infested logs are identified as most frequently foraged food item in the studied habitats. Laboratory analysis of faecal matter further revealed that the undigested matter (by weight) predominantly constituted of grit (53.3%), animal matter (37%) and plant matter (9.7%). The digestibility of termites appears to be high compared to ants and other insects. Higher abundance of the heads, mouthparts, abdomens, and legs of ants compared to those appendages of termites in the analysed faecal samples suggest a higher digestibility of above mentioned body parts of termites than the ants. The wings of the termites also found in greater abundance in the analysed faecal samples. Termites belong to the genus Odontotermes and the ant species belong to the genera Oecophylla, Anoplolepis, Camponotus and Monomorium were identified as the main prey species of the Indian pangolin in the studied habitats. The findings of the study also suggest that human modified agricultural lands adjoining forest are important as feeding grounds of Indian pangolins, and worth considering in long-term conservation planning of the species.

Keywords: Indian pangolin, Dietary spectrum, Foraging habitat, Faecal analysis

Proceedings of the 24<sup>th</sup> International Forestry and Environment Symposium 2019 of the Department of Forestry and Environmental Science, University of Sri Jayewardenepura, Sri Lanka