

# Population status, distribution and some ecological features of *Trachypithecus vetulus philbricki* at Mihintale Sanctuary, Sri Lanka

W.M.J.R.K.W. Unanthanna and S. Wickramasinghe

Dept. of Biological science, Faculty of Applied Sciences, Rajarata University of Sri Lanka, Sri Lanka

The Dry zone purple-faced leaf langur (*Trachypithecus vetulus philbricki*) is an endangered primate endemic to Sri Lanka according to the International Union for Conservation of Nature (IUCN). Mihintale Sanctuary is considered to be the first sanctuary for wildlife in the world. Even though the biodiversity of this area is high there has been no detailed study on the distribution of *Trachypithecus vetulus philbricki*. The aims of the research were to determine the population and structure of the *Trachypithecus vetulus philbricki*, spatial distribution of this species and the different food types they consume and the abundance of those food items. Population study was carried out by direct counting and vocal sounds. A fixed permanent line transects were used for the data collection. Feeding and social behavior were carried out by using focal animals sampling method. Plot sampling was used for the vegetation analysis.

The present distribution of *T.v.philbricki* is severely fragmented within the sanctuary. A total of 03 troops and least 27 individuals were recorded during the study period between December 2009 to March 2010. These three troops were sighted in Kaludiyapukuna (05 individuals), Ethwehera (11 individuals) and Mihintale (11 individuals). Information from local people indicated the possible occurrence of at least 02 troops or more in the region. Due to the human influences most remaining populations living almost completely in forested habitats. The average group size was  $11.3 \pm 1.1$  in forested areas and  $5.0 \pm 0.5$  in forests near to human habitation. *T.v.philbricki* used selected tree species as food plants of which 03 species (*Ficus* sp. *Manilkara hexandra* and were frequently consumed. They mostly ate vegetative plant parts (90%), thus indicating their folivorous nature. The results indicated that the distribution pattern was varied with the food availability in the forest. Of the major diurnal activities viz, rest, move sit and feed, *T.v.philbricki* spent maximum time in sitting (40.3%) on the *Diospyros ebenum* trees. The species recorded occur in very low densities with low numbers of immature, and are threatened due to habitat loss and hunting. Recommendations should be made increase the public education and community participation programs and legal action to implement effective conservation strategies to conserve this important creature.