

Population status of mongooses (Mammalia: Carnivora: Herpestidae) in and around Mihintale Sanctuary of North Central Province, Sri Lanka

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Mongooses are ecologically important, diurnal and solitary hunters, represented by four species in Sri Lanka. According to the conservation status given in the 2015 IUCN Red List of Threatened Species, they are of least concern. There is a data gap on the Herpestidae fauna in Sri Lanka. Hence, this study was conducted to collect the information on the population size, habitat preference, diet and the threats faced by mongoose in and around the Mihintale Sanctuary. Present study was carried out during a six month period (July to December) in 2015. Population was estimated using distance sampling method (through direct observations) and counting burrows (through indirect signs) in the activity area. Data were analysed using Distance 6.2 software. Diet analysis was done by faecal pellet analysis, while the habitat preference was determined by comparison of population densities and the number of burrows in different habitat types. Threat identification was done through a self-administered questionnaire given to villagers in the area. According to the results two species of mongooses were found in Mihintale area, namely Indian grey mongoose (*Herpestes edwardsii*) and Indian brown mongoose (*H. fuscus*), while the former was the most common. Population densities of *H. edwardsii* and *H. fuscus* were $15.33 \pm 2.06 \text{ km}^{-2}$ and $1.83 \pm 0.84 \text{ km}^{-2}$ respectively. The highest population density of *H. edwardsii* ($13.53 \pm 2.50 \text{ km}^{-2}$) was recorded from residential areas while the lowest ($0.6 \pm 0.21 \text{ km}^{-2}$) was recorded in the forest. Burrows of *H. edwardsii* were distributed in residential areas closed to poultry farms and food shops. Hence, the most preferred habitat of *H. edwardsii* was found to be residential areas near the vicinity of human habitation, whereas *H. fuscus* was mostly found near the forest. Diet of *H. edwardsii* consisted of animals (fishes, insects, bird eggs etc.) and plant materials (seeds, fruits, etc.), hence, can be considered as an omnivorous species. Habitat loss was observed to be the main regional threat for mongooses in this area. While conservation approaches are necessary for management of their populations, such actions should be based on multidisciplinary studies on these populations.

Keywords: Habitat preference, *Herpestes*, Population density