

## Species richness and species diversity of small mammals at the Giritala Nature Reserve of North Central Sri Lanka

A V D J Indika\* and W A D Mahaulpatha  
*University of Sri Jayewardenepura, Nugegoda.*

Small mammal species richness and diversity at the Giritala Nature Reserve of north central Sri Lanka was studied from June 2006 to August 2007. Sherman traps and Pitfall traps (Mazerolle et al., 2001) were used to capture the small mammals. The study was conducted at four habitat types as grasslands, shrubs, forests and human habitat. Traps were laid on three consecutive nights per month in each habitat type (King et al., 1996). Sixty four small mammals belonging to families Soricidae, Muridae and Scuridae and orders Insectivora and Rodentia were recorded in 1560 trap nights at four different habitat types. Species recorded included, *Suncus murinus murinus* (Common Indian Musk Shrew), *Mus cervicolor fulvidiventris* (Ceylon Field Mouse), *Mus musculus castaneus* (Indian Field Mouse), *Mus fernandoni* (Ceylon Spiny Mouse), *Rattus rattus rattus* (Common House Rat), *Rattus rattus rufescens* (Indian House Rat), *Rattus blanfordi* (White Tailed Rat) and *Funambulus palmarum* (Indian Palm Squirrel). Human habitats had the highest Shannon diversity (H') index of 1.59 while sShrub-lands had the lowest diversity index of 0.57. In contrast grasslands had a high abundance of 0.07 compared to the abundance of 0.04 for the human habitats. Evenness was low in grasslands (0.55) and high in shrubs (0.97). Number of small mammals captured was significantly different in the four habitat types ( $\chi^2 = 19.93$ , DF=3) with grasslands having the highest capture rate of 47% and shrub-land having a lowest rate of 8%. Seven species were observed in more than one habitat. Present study which is the first to reveal the species richness, diversity and abundance of terrestrial small mammals at the Giritala Nature Reserve, indicated that the grasslands of nature reserve comprise of a rich species diversity of small mammals and hence warrants protection.