

HABITAT UTILISATION PATTERN OF *Lantana camara* IN UDAWALAWE NATIONAL PARK IN SRI LANKA

W.N.N.U. Gunatilleke¹ & D.M.S.H.K. Ranasinghe²

¹ Department of Wildlife Conservation

² Department of Forestry & Environmental Science,
University of Sri Jayewardenepura

Lantana camara, of the family Verbenaceae is native to the tropical and sub tropical regions of Central and South America. It grows in a wide range of habitats, from exposed dry hillsides to wet heavily shaded gullies. It was introduced to Sri Lanka in 1926 through the Royal Botanic Gardens and currently it has spread across the island significantly and has become an invasive species in most of the habitats including the Udawalawe National Park. Through its invasive nature it has become a threat to fauna and flora of the Park due to habitat invasion and loss. Therefore, the main objective of this study is to assess the habitat utilization pattern of *L. camara* in the Park.

For this, the extent of the species in the 3 selected habitats of the Park i.e. Scrub grassland, Medium height scrub and Scrub forest transitions was studied using field survey using GPS instruments. This data was mapped subsequently in order to get an overall idea of the habitat utilization of the species in the Park. Further, the relative abundance of this species in each of the 3 habitats selected was studied using 10 x 10 m quadrates replicated 3 times for better accuracy. Field observations were carried out in *L. camara* trees on the following parameters; presence of flowers and seeds on the tree, time taken to start flowering, seed dispersal mechanism, seed germination and spreading ability. Seeds were also germinated in the green house of the University of Sri Jayewardenepura to assess the germination period and germination energy.

The results showed significant variation was observed between the habitat types sampled in the extent of *L. camara*; the figures being 75% in the Scrub grassland, 65% in Medium height scrub and 45% being in the Scrub forest transitions. When these results were mapped, it showed 20% invasion of *L. camara* in the Park especially into the vegetation types sampled in the study. When taken as an overview, the main road and Veheragolla, Seenuggala, Mau ara, Thimbiriyamankada and 5th mile post are the most densely and continuously distributed areas.

The relative abundance and height of *L. camara* was highest in the Medium height scrub grassland (92%) while the lowest was observed in the Scrub forest transitional area (87%). The species produced large number of flowers and seeds (20 – 30/cluster). The germination ability of the plant was very high (85 %). Therefore, the present study highlights the invasive nature of the plant especially in open scrub areas and the need to effectively manage the same to secure the biodiversity of the Park.