



DETERMINANTS OF *Lantana camara* IN UDAWALAWE NATIONAL PARK, SRI LANKA

Madhawa S. Ranasinghe^{1*} and Shirantha Heenkenda²

¹Ministry of Mahaweli Development and Environment, Sri Lanka

²Department of Economics, University of Sri Jayewardenepura, Sri Lanka

madhawa7@gmail.com

ABSTRACT

The Udawalawa National Park is a Park rich in biodiversity in Sri Lanka. According to the records 650 to 700 Asian elephants (*Elephas maximus*), endemic flora and fauna were recorded in the Park. In last few decades invasive alien species (IAS) rapidly distributed in large areas of the Park. Among these *Lantana camara* has shown much dominance and this has significantly reduced the grazing lands of animals with special to elephants. Dearth of information on the factors which determine the prevalence of *L. camara* has posed a debacle in eradicating the same. This study was therefore undertaken with the primary objective of finding the major determinants of the prevalence of *L. camara* in the Park using Geographical Information Systems (GIS). Random line transects were used with 84 samples. Number of bushes of *L. camara* and their coverage was estimated. The inverse distance weighted (IDW) and weighted overlay tools were used to analyse ground survey data. In the sampling points, soil samples were collected and analysed for pH, moisture, type, conductivity and phosphorus content. The results showed that soil pH and coverage of *L. camara* showed significant positive correlation. Therefore this information will provide valuable insight into the control of the invasive species from the Park.

Keywords: biodiversity, geographic information systems, invasive alien species, *Lantana camara*