

Comparison of Insect Assemblages on Two Invasive Alien Plant Species *Annona glabra* L. and *Lantana camara* L. in Selected Habitats of the Wet Zone

M Liyanagamage¹ #, N Pallewatta², C Dangalle², S Wijesundara³ and S Viswakula⁴

¹Asia Pacific Evaluation Association

²Department of Zoology and Environment Sciences, University of Colombo

³Institute of Fundamental Studies, Kandy

⁴Department of Statistics, University of Colombo

#madhukalg@gmail.com

Invasive alien plants have the ability to alternative animal populations by providing a range of food and habitats. This is an aspect that requires greater research especially from Sri Lanka where it is near absent. This study was based on insect assemblages associated with two major invasive alien plant species; *Annona glabra* L. and *Lantana camara* L. The research identified the composition of insect assemblages, their behaviour and preference for spatial layers along the axis of both plant species growing in habitats with different disturbance levels. Field sampling was carried out in selected sites within Bellanwila, Attidiya wetland in the Colombo District and Garaduwa marshy area in Matara District. In each location, two 10m*10m stands of plants were selected from each plant species, where one stand was in a location more disturbed by human activities, while the other was in a less disturbing situation. Each selected plant, from both species, was divided into three spatial layers as bottom, middle, and canopy. Insects collected from each layer of both plant species were identified as much as possible. Results show that insects belonging to ten orders; Lepidoptera, Coleoptera, Hemiptera, Hymenoptera, Homoptera, Orthoptera, Odonata, Diptera, Mecoptera, and Thysanoptera were associated with *A. glabra* and insects from other eight orders except for the orders; Thysanoptera and Mecoptera were associated with *L. camara*. Using statistical models, the probability of occurrence of insects in contrasting situations was calculated. Results prove that despite being alien plants, a high diversity of insects is associated with each plant species. The composition of insects and their preference for spatial layers are significantly different between the two plant species.

Keywords: *Invasive alien plants, Annona glabra, Lantana camara, insect assemblages*