

## **Preliminary survey of insect pollinators in the premises of University of Kelaniya**

M.D.R. Madduma\*, A.R.D.D. Ramanayaka, S.M.J.C.K. Jayasundara and L.D. Amarasinghe

Department of Zoology and Environmental Management, University of Kelaniya, Kelaniya

**\*Corresponding author: damindiruwanthikamadduma@gmail.com**

A study was carried out to identify species of insect pollinators and to determine their percentage occurrence in university premises. These findings can be used to assist with the aims of green university concept by suggesting the most applicable methods to conserve insect pollinators in the area. In this study the plant species were identified in university premises by referring to herbariums and sign-boards of plants to which the pollinators were attracted. To identify different species of insect pollinators, only the insects which were landing on the flowers were sampled using a butterfly net with a diameter of 0.5m and 1m long handle while some species were hand-picked. The percentage occurrences of those species were computed in eight different sites, twice a day; from 8.30am to 10.30am and from 3.30pm to 5.30pm within an observation period of 14 days from 14<sup>th</sup>-28<sup>th</sup> October 2016. During the observation period the average relative humidity, temperature and wind speed were respectively 62-65%,  $29 \pm 3^{\circ}\text{C}$ , 2-4mph. Totally 12 insect species were identified. In site 01, rich with flowering plants; 11 species of insect pollinators were observed out of 12 identified species. In other sites with less vegetation and where the constructions were going on, had less species richness. Butterfly species, *Leptosia nina*, *Ypthima celonica*, *Eurema hecabe* and the bee species *Tetragonula iridipennis* have a percentage occurrence higher than 75% while rest of the identified insect pollinators have similar or less than 50% of percentage occurrence in university premises. The flies, *Bactrocera cucurbitae* were only observed in site 01 and 02 where the vegetable plants were present and *Bactrocera dorsalis* were only observed in site 01 where the most fruit plants were present. Many species among the identified species were observed visiting the plants, *Tecoma stans*, *Cosmos sulphureus*, *Spatodea companulata*, *Cassia fistula*, *Jasminum sambac*, *Delonix regia*. These insect populations can be increased and even new pollinator species can be attracted by introducing preferable flora and using other conservation methods such as building pollinator gardens for those species.

**Keywords:** Plant species, percentage occurrence, site