419/D

Studies on seasonal abundance and species diversity of butterfly fauna in Kiralakelle Wetland in the Matara District

W.M.C.D. Wijekoon, C.N.L. Bogahawatte and H.C.E. Wegiriya
Department of Zoology, Faculty of Science, University of Ruhuna, Matara

Butterflies are one of the taxonomically well known invertebrate groups in Sri Lanka However, ecological studies on this aesthetically important indicator group are very limited. The present study investigated the seasonal abundance and species diversity of butterflies in Kiralakelle. It was proposed as an open sanctuary for ecotourism in the Matara District. Four butterfly trails were selected during the initial survey and point scan line-transect technique was used to survey of butterflies. Abundance, Diversity and Evenness indices were estimated. Seasonal abundance of butterflies was recorded twice a month from January to December in year 2008.

Twenty four butterfly species representing nine families were recorded. The highest numbers of butterfly species represented were in Families: Danaidae, Nymphalidae, Papilionidae, with four species from each family. One endemic butterfly, Common Rose *(Pachliopta aristolochiae ceylonica)* and two rare species, Banded Blue Pierrot (*Discolampa ethion ethion)* and Small Branded Swift *(Pelopidas mathias mathias)* were recorded. Seven species of butterflies namely White Four Ring *(Ypthima ceylonica)*, Nigger *(Orsotriena medus mandata)*, Common Mormon *(Papilio polytes romulus)*, Lemmon Emigrant *(Catopsilia Pomona)*, Common Sailer *(Neptis hylas varmona*), Tailed Jay *(Graphium Agamemnon mendes)* and Plum Judy *(Abisara echerius prunosa)* were found during the specific period from April to October (29.17%). Blue Glassy Tiger *(Ideopsis similes exprompta)*, Common Jezebel (*Delias eucharis)*, Double Banded Crow (*Euploea Sylvester Montana)*, Angled Castor (*Ariadne ariadne minorata)* and Common Grass Yellow *(Eurema hecabe simulate)* butterfly species were abundant throughout the year (20.83%). In addition to seasonal variation, butterfly fauna demonstrated noticeable spatial variation within the selected study trails. Trail 2 had the highest Shannon Wiener diversity index (2.5880) and, Evenness (0.8639) indicating highest degree of spread of individuals between species. When Great Crow *(Euploea phaenareta corus)* represented only trail 1 and Angled Castor *(Ariadne ariadne minorata)* confined to trail 2, six species of butterflies were found in all four trails. The highest vegetation cover in trail 1 may have contributed to the higher butterfly population in trail 1. These findings will assist nature lovers using the trails to enjoy butterflies and will be useful for future ecotourism and conservation programmes.

Key words: butterfly diversity, seasonal abundance, Kiralakelle.