ABUNDANCE AND DIVERSITY OF BUTTERFLY FAUNA OF KAUDULLA NATIONAL PARK

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The butterfly fauna of Sri Lanka is enumerated as 245 species of which 26 species are endemic and 41 % are listed as threatened. Therefore, in view of conserving the butterfly fauna, it is important to record the species present in different parts of the country. The present study was conducted with the objective of recording the species diversity and abundance of butterflies in the Kaudulla National Park (KNP) from January to May 2013. Two sites were selected *viz.* entrance area and the roadside within the forest. A linear transect of 250 m each was selected at each site for sampling, all sighted butterflies were recorded and identified and counting was carried out once a week from 7.00 am to 5.00 pm on hourly basis and 15 minutes was spent per hour per site. The Shannon index (H') was used to compare the diversity of butterfly species within sites. The student t-test was used to test the significance of the variation in the number of butterfly species between sites.

Twenty three different species of butterflies were identified belonging to four families *viz.* Nymphalidae, Papilionidae, Pieridae and Lycaenidae and each represented by 12, 6, 3 and 2 species respectively. Out of the species recorded, three species namely Ceylon rose (*Pachliopta jophon*), Ceylon tree nymph (*Idea iasonia*) and Jewel four ring (*Ypthima singala*) are endemic to the country while Ceylon tree nymph and Blue glassy tiger(*Ideopsis similis*) were species listed under vulnerable category during the National Red listing 2012. The number of species recorded along the roadside within the forest (H'= 2.2363) was greater than in the entrance area (H'=1.7363). The Lesser grass blue (*Zizina otis*) (41.06 %) and Jewel four rings (*Ypthima singala*) (25.18 %) were the most abundant species in both sites while the Ceylon tree nymp(*Idea iasonia*) (0.017 %) and Sri Lanka bird wing (*Troides darsius*) (0.026 %) were the rarest. The census indicates a gradual increase in both species diversity and abundance from January to April with a peak in April, followed by a sharp decline in May. In KNP, a gradual decrease in rainfall (0 – 88.4 mm) and gradual increase in temperature (24 – 31.5 ^{0}C) was recorded from January to May while sudden increase in wind speed (8.126 Km/hour) was recorded in May. This led to the disappearance of the annual green vegetation in May and this could be attributed for low abundance of butterflies in May. Kaudulla National Park is a popular destination for elephants and it could further be promoted as a butterfly destination in April, which is the off season of elephants.

Keywords: Abundance, Butterfly, Diversity, Kaudulla National Park