COMPARISON BETWEEN BUTTERFLY SPECIES RICHNESS IN URBAN AND NON-URBAN AREA

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ABSTRACT

COMPARISON BETWEEN BUTTERFLY SPECIES RICHNESS IN URBAN AND NON-URBAN AREA

Butterfly diversity has been closely associated with the effect of environmental disturbance. In this study, the diversity of butterflies was studied at two locations, UiTM Kuala Pilah and Jeram Beting. The study was conducted from September to November 2018 using random collection sampling. This study aims to determine the diversity of butterflies in UiTM Kuala Pilah and Jeram Beting and to determine the effect of urbanization on butterfly species richness in Kuala Pilah, Negeri Sembilan. A total of 19 species was recorded during the two months of sample collection. There were five families recorded from the sample collection, with the highest being Nymphalidae at 6 species (30%), followed by Papilionidae at 4 species (20%), Pieridae at 4 species (20%), and the lowest being Lycaenidae and Hesperiidae at 3 species each family (15%). The butterfly diversity was found to be higher for UiTM Kuala Pilah at H' = 0.41 and lower for Jeram Beting at H' = 0.14. Contrary to Diversity Index (H'), the Species Richness Index (R) for butterflies in UiTM Kuala Pilah was found to be lower than in Jeram Beting at R = 1.95 and R = 2.71 each. The effect of urbanization on butterfly richness in Kuala Pilah has also been determined by using Pearson Correlation Coefficient (r) where $r = +1$. This indicates that there is positive correlation between urbanization and butterfly richness where as one variable increases, the other variable also increases. In conclusion, Jeram Beting has been identified as the more urban area with higher species richness compared to UiTM Kuala Pilah. The high species richness in urban area may be influenced by the replacement of native species by the non-native species of butterflies. It is recommended that future experiments should be conducted in longer period to attain more accurate results, and to consider all related parameters that could affect the results.