

Impact of Climate Change on Butterfly Population over a Metropolis of India

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Abstract

Evidences are accumulating that climatic change in recent decades (IPCC, 2015) has had a major effect, leading to species decline and extinction. Literature reveals that the impact of the expected future changes on the populations and distribution of butterflies will be huge, and action is urgently needed.

Butterflies in Kolkata (22.5726 N; 88.3639 E) are facing enormous changes in their environment. In this study butterflies and their diversity in different locations of the urban city, Kolkata is attempted. Diversities in the butterflies is estimated in three different locations; **Jadavpur University area (South)**, **Victoria Memorial (Central)** and **Rabindra Bharati area (North)** of **Kolkata metropolis** in the winter of 2017. Analysis on diversities and species abundance of butterflies over these three locations reveals that Rabindrabharati possesses healthier environment than other two sites. The bio-diversity and species abundance is good and balanced. Assessments of air quality index also suggest that Rabindrabharati University area is less vulnerable in comparison to other two sites.

Keywords: *Pollution, Air Quality Index, Butterflies, Biodiversity*