Extended Abstract
Volume 9:4, 2021

Biodiversity & Endangered species

Open Access

Butterfly-flower interactions and biodiversity in the changing environments

Aluri Jacob Solomon Raju

Andhra University, India E-mail:ajsraju@yahoo.com

Abstract

Butterflies occupy a vital place in the ecosystem and are useful as indicators of environmental variations. Their occurrence depends on the climatic dicta, the presence of suitable caterpillar foods and suitable adult nectar sources or other food, suitable arenas for flight and courtship. They require a continuous provide of food sources, especially nectar origin from a number of plant species. In this context, floral morphological and nectar characteristics are important for visitation by butterflies. Nectar plays an important part in the nutrition of adult butterflies. Nectar is a highly enriched food resource including of carbohydrates, amino acids, lipids, antioxidants, alkaloids, proteins, vitamins, salts, etc. But, all these nutrient chemicals are not found in a single floral nectar origin and hence flower-visiting butterflies should pay visits to various floral nectars to acquire all the required nutrients.

Butterflies are broadly studied because of their key surroundings functions. For this reason, they may be utilized in surroundings assessment, formulating conservation plans and in elevating the environmental awareness. Quantification of various factors affecting range of butterflies is crucial for his or her powerful conservation. In this take a look at, we investigated abiotic and biotic elements affecting species richness and network composition of butterflies alongside an elevational gradient in Manang area, valuable Nepal. We additionally examined if butterfly species comply with the Bergmann's rule. A general of fifty seven butterfly species belonging to 39 genera and eight households have been recorded withinside the take a look at area. Out of a complete of 127 plant species diagnosed withinside the take a look at area, most effective sixty seven plant species have been visited with the aid of using butterflies as nectar sources. Species richness of butterflies expanded with growing elevation.

Species richness become notably better in locations with shrubs in comparison to different locations and additionally in autumn than in summer. Species richness of butterflies additionally relied on composition of plant species going on on the localities. Butterfly species composition various amongst sampling localities.

It become additionally decided with the aid of using habitat type, elevation, sampling time, plant species and interactions of elevation × time. The courting among butterfly length and elevation become with inside the contrary course than anticipated consistent with the Bergmann's rule. In conclusion, safety of butterfly range can most effective be executed with the aid of using defensive extraordinary habitats throughout the various physiography of the area and extraordinary plant species, particularly herbs and shrubs. Our consequences do now no longer help the Bergmann's rule for butterflies alongside an elevational gradient in our area.

The butterfly interactions with the flowers of certain plant species will be detailed. Plant species which smooth foraging by butterflies show certain floral traits adapted for butterfly foraging activity and in the process both get benefited. With accelerated deforestation and changing ecology and subsequent change in the environment, the butterflies appear to be struggling to get the needed levels of quality nectar for survival during their adult life. The summer season is very crucial for butterflies since a less plants bloom during this period. The butterflies appear to be malnourished during inspect life due to lack of enough nectar sources throughout the year due to changes in land use and climate.

This work is partly presented at 7th International Conference on Biodiversity Conservation and Ecosystem Management July 26-27, 2018