

## **Biodiversity: Understanding the Importance and Challenges of Conservation**

**Anamika Agarwal,<sup>1</sup> Muskan Khanduja<sup>1</sup>,  
Sameer Chandra<sup>2</sup>, Shiv Shankar<sup>3</sup>, Gaurav Bhushan\*<sup>1</sup>**

<sup>1</sup> Department of Environmental Science

Bareilly College, Bareilly, U.P. India

(Affiliated to MJP Rohilkhand University, Bareilly, U.P.),

<sup>2</sup>School of Science, Department of Botany

IFTM University, Moradabad, U.P. India

<sup>3</sup>Department of Environmental Science

University School of Vocational Studies and Applied Sciences

Gautam Buddha University, Greater Noida

Gautam Budh Nagar, U. P. India

Corresponding author email: bhushanbcb25@gmail.com

Biodiversity, the diversity of life on Earth, is fundamental to the functioning of ecosystems and provides numerous benefits to humans, including food security, medicine, climate regulation, and cultural values which is given under natural conditions is known as biodiversity. Industrialisation, urbanisation, deforestation etc. have given rise to threat for biodiversity. In this chapter, we will explore the concept of biodiversity and the challenges it faces, as well as the importance of conservation efforts to preserve Earth's biological heritage.

### **Biodiversity**

The term 'biodiversity,' coined by Walter G. Rosen in 1985, is widely used but lacks a universally accepted definition. It is often redefined based on the specific context and purpose of each author (Swingland, 2001). The variety and variability among all forms of living organisms such as plants, animals, micro-organisms and ecosystems which are present in a given region under natural conditions is known as biodiversity. It is the basis of survival and existence. Biodiversity represents the complex web of life that supports our planet's ecosystems, providing essential services and resources upon which human societies depend.

The World Biodiversity Day is celebrated every year on 22nd May. Biodiversity is that important part of nature which includes the differences in genes among the individuals of species, the variety and richness of all plants and animal species at different scales in a region.

Humans are continuously engaged in destructive activities which lead to harmful effect on natural ecosystem. Many species are in danger of extinction and some have gone extinct because of human's unnatural activities. Government has taken strict steps to save endangered species and the environment to help preserve our natural heritage. Non-governmental