



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35



BIODIVERSITY

- ❖ Biodiversity is the variety and differences among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are a part.
- ❖ It is virtually synonymous with "Life on earth".
- ❖ Biologists most often define "biological diversity" or "biodiversity" as the "totality of genes, species, and ecosystems of a region".
- ❖ The biodiversity found on Earth today consists of many millions of distinct biological species, which is the product of nearly 3.5 billion years of evolution.

Levels of Biodiversity

1) Genetic diversity

- ❖ It is a level of biodiversity that refers to the total number of genetic characteristics in the genetic makeup of a species.
- ❖ It is distinguished from genetic variability, which describes the tendency of genetic characteristics to vary.

2) Species diversity

- ❖ It refers to the variety of species within a region.
- ❖ Species diversity is an index that incorporates the number of species in an area and also their relative abundance.
- ❖ It is generally a much more useful value than species richness.

3) Community and Ecosystem diversity

- ❖ Ecosystem diversity refers to the diversity of a place at the level of ecosystems. This has 3 perspectives:
- ❖ Alpha Diversity: Within community diversity. Alpha diversity refers to the diversity of organisms sharing the same Community/Habitat.



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

COIMBATORE-35



- ❖ Beta Diversity: Between community diversity. It refers to the diversity of organisms sharing two habitats.
- ❖ Gamma Diversity: Diversity of the habitat over the total landscape or geographical area is called gamma diversity.