



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

Coimbatore-641035.



BIO DIVERSITY

Biodiversity refers to the variety and variability among all groups of living organisms and the ecosystem complexes in which they occur.

In the convention of Biological diversity (1992) biodiversity has been defined as the variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part.

Genetic diversity

Genetic Diversity is the basic source of biodiversity.

The genes found in organisms can form enormous number of combinations each of which gives rise to some variability.

Genes are the basic units of hereditary information transmitted from one generation to other.

When the genes within the same species show different versions due to new combinations, it is called genetic variability.

For example, all rice varieties belong to the species *oryza sativa*, but there are thousands of wild and cultivated varieties of rice which show variations at the genetic level and differ in their color, size, shape, aroma and nutrient content of the grain. This is the genetic diversity of rice

Species diversity

Species Diversity is the variability found within the population of a species or between different species of a community.

It represents broadly the species richness and their abundance in a community.

What is the number of species in this biosphere?

The estimates of actual number vary widely due to incomplete and indirect data.



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The current estimates given by Wilson in 1992 put the total number of living species in a range of 10 million to 50 million.

Till now only about 1.5 million living and 300,000 fossil species have been actually described and given scientific names.

Ecosystem diversity

Ecosystem diversity is the diversity of ecological complexity showing variations in trophic structure, food-webs, nutrient cycling etc.

The ecosystems also show variations with respect to physical parameters like moisture, temperature, altitude, precipitation etc.

The ecosystem diversity is of great value that must be kept intact.

This diversity has developed over millions of years of evolution.

If we destroy this diversity, it would disrupt the ecological balance.

We cannot even replace the diversity of one ecosystem by that of another.