

Notes

Biodiversity: “**Biodiversity** is the number and variety of organisms found within a specified geographic region. It refers to the varieties of plants, animals and microorganisms, the genes they contain and the ecosystems they form”. The term **biodiversity** was given by Edward Wilson. **Biodiversity** is a combination of two words ‘**bio**’ and ‘**diversity**’.

Tropical Amazonian rain forest (South America) is the greatest biodiversity on earth. It contains

- > 40000 species of plants
- 3000 species of fishes
- 1300 species of birds
- 427 species of mammals
- 427 species of amphibians
- 378 species of reptiles
- > 1,25,000 species of invertebrates

Biodiversity (species richness) is highest in tropics because

- Tropics had more evolutionary time.
- Relatively constant environment (less seasonal).
- They receive more solar energy which contributes to greater productivity.

As the name indicates there is some sort of relationship between species of a particular region and the area in which they live which is particularly called as habitat. **Alexander Von Humboldt** observed that the diversity of species increases with increase in explored area upto a certain limit.

This relationship between species and area can be plotted to generate a species/area curve. Such a plot can give us useful information such as the total number of species in a region and the rate of species increase with area between different regions (calculated from the slope of the curve).