

Ecology

1. Study of inter relationship between living organisms and their environment.
2. Various population of living in a definite place is called Biotic Community.
3. Ecosystem or Ecological system word was first coined by the scientist namely Tansley.

Every ecosystem is made up of two components —

- (a) Biotic component – Living part
- (b) Abiotic component – Non living part

(a) Biotic components : It is divided into three parts —

- (1) Producer (2) Consumer (3) Decomposers

(1) Producer : Those components that make their own food. Like – green plants.

(2) Consumer : Those components that consumes the food made by plant. Consumers are of three types —

(i) Primary consumers : In this category those organisms are included that lives on green plants or some parts of them.

(ii) Secondary consumers : In this category those organisms are included that depends on the primary consumers as their food. Like – fox, wolf, peacock etc.

(iii) Tertiary consumers : In this category those organisms are included that depends on the secondary consumers. Like – Tiger, lion, cheetah etc.

(3) Decomposers : Mainly fungi and bacteria are included in this category. These decomposes dead producers and consumers and changes them into physical elements.

(b) Abiotic components : Abiotic components are as follows –

(i) Carbonic substance, (ii) Non-carbonic substance, (iii) Climatic factor Example : Water, light, temperature, air, humidity, minerals etc.

4. Food Chain : Transfer of energy from the producer through a series of organisms.

Nitrogen cycle

1. Nitrogen fixation is a process in which free atmospheric nitrogen is converted by living organism into nitrogenous compound that can be used by plant
2. **Ammonification** : Formation of ammonia from organic compound like proteins and nucleic acid by microorganism.
3. **Nitrification** : A process in which ammonia is converted into nitrates and nitrites by Nitrobacteria.
4. **Denitrification** : It is the process of converting fix nitrogen like nitrates, nitrites and ammonia into free nitrogen by denitrifying bacteria eg Pseudonymona.

