Ecology :- study of organisms in relation to their Environment.

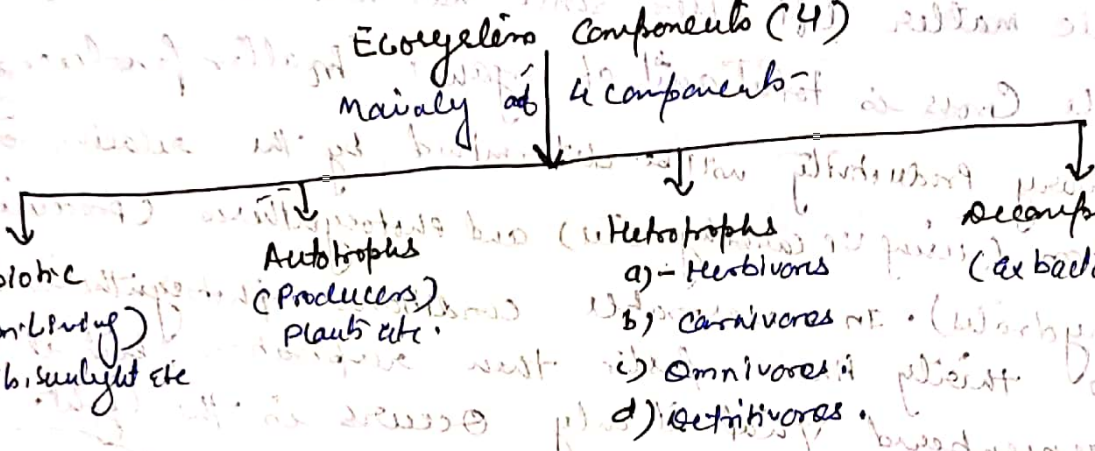
⇒ Indiv Animals are typically associated with certain community

Types:

Biomes:- Biotic Associations:- There are large areas in which recognisable associations of species occurred.

Ecosystems:- A system of organisms functioning together with their non-living Environment (in such a way that there is interchange of materials between them even if the system lasts for short time.)

→ Eco^m - open System. (Have flow of energy and materials across their boundaries)



⇒ The trophic structure of an Ecosystem

i) The organisation and pattern of feeding in an Eco^m = Trophic Structure

(1) The sequence of Consumer Level is known as "Food chain"

Interconnections of food chain ⇒ Food web.

Trophic classification is one of function not of Pop^n.

⇒ So omnivores species could occupy more than one trophic level.

→ Storage of energy in the system is shown by the amount of living material in both the plants and animals present.

Standing Crop:- The amt of living material present.

standing Crop can be measured in several ways but is usually shown as Biomass (living Material)/unit area. measured as dry weight, ash weight or calorific value. Usually

⇒ The amt of St. Crop. in each trophic level decreases with each step on the food chain away from the plants. Shown diagrammatically by trophic Pyramids. because - there flow of Energy decreases with each successive trophic level.

Productivity:- In an Ecosystem the rate of production of organic matter is known as Productivity.

Primary Productivity - Production at autotrophs level

Secondary Productivity - Production at hitrotrophs level.

Gross and Net Productivity:- Net Productivity is total amt of organic matter left after some has been used in respiration while Gross is total amt of organic matter produced

NET Primary Productivity will be determined by the relative rates of respiration (using up carbohydrate) and photosynthesis (producing carbohydrate). In reasonable conditions photosynthesis proceeds upto thirty times faster than respiration, but it must be remembered that it only occurs in the light.

Ecological Niche:- The role that an organism / take in the Ecosystem is known as its "Ecological Niche".

Species structure:- Refers to the numbers of species present their relative abundance and diversity.

Dominants:- Few common species in an Ecosystem.

Incidentals:- Rare species in an Ecosystem.

- Flow of Energy in an Ecosystem is One Way.