

B.M.A. College, Baheri, Darbhanga

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Subject - Biology

Class - XII

Topic - Ecosystem

Two Major Component of an ecosystem

① Biotic Component ② Abiotic Component

(i) Biotic Component : → It includes the all living organism are present in an ecosystem

e.g. producer, Consumer and decomposer

(ii) Abiotic Component : → It includes the all non-living factorse.g. - Light Temperature, wind, Humidity,
Rain,Inorganic material - Carbon, Nitrogen, oxygen,
CO₂, water etc.organic matter containing protein, carbohydrates,
lipid, humid substancesProducers : → All plants are called producer
Because they have capacity to convert energy
of sun into the chemical energy of food.Plants can synthesize their own food using CO₂ + H₂O and
sunlight by the process of photosynthesis.
since the plant have the capacity to produce food so,
they are called producer. e.g. green plants and algaeConsumer : → All animals are called consumer.they are unable to make their food and hence,
they consume food prepared by producer or
eat other consumers

e.g. Goat, lion etc.

Page ② Definition : Ecosystem

(i) Agroecology : → study of the relationship between the agriculture crops and environments.

(ii) Food chain : → All food chains starts with the green plants that is the original of all food.

or Transfer of food energy from plants through a series of organisms with repeated eating and being eaten.

(iii) Food-web : → Net work of various food chains which are inter connected with each others like interlocking pattern.
It has many linkages and intercrosses among the producer and consumers.

~~Pyg~~ Pyramid : → graphic representation of food chain involving the living organisms in a community like a pyramid.

(iv) Ecological Pyramid : → these are graphic representation of certain specific parameters, such as number biomass or energy of food chain.

The pyramids of number and biomass are upright i.e. producer outnumber and out weight the herbivores or Herbivorous outnumber or out weight the Carnivores

However in certain ecosystem the pyramid of number and biomass (in sea)
In sea, the biomass of fishes far exceeds that of phytoplankton.