

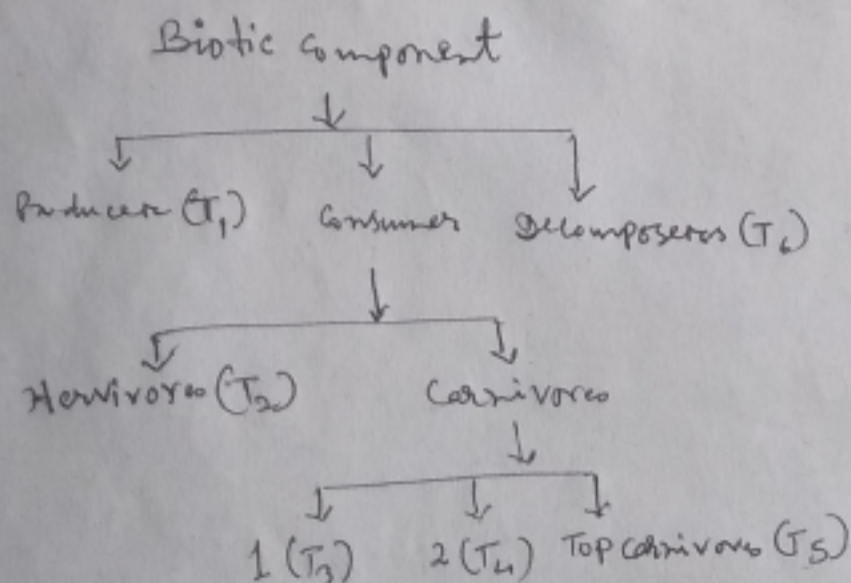
Unit - 5

Biotic interactions

Trophic organization, basic source of energy, autotrophy, heterotrophy, symbiosis, commensalism, parasitism, food chain and webs, ecological pyramids, biomass, standing crop.

Trophic Organisation

Trophic structure of ecosystem is based on the existence of several trophic levels in the ecosystem. The Producers form the first trophic level or T_1 and herbivores T_2 followed by carnivorous i.e. T_3 trophic level. Top carnivores represent either T_4 or T_5 trophic level. Decomposers form the last or detritus trophic level or T_6 . Since Parasites feed upon the organisms of all trophic level therefore do not have definite trophic level. The number of trophic level is lesser in terrestrial ecosystem than aquatic ecosystem.



In an ecosystem, there can be only 4-5 successive trophic level, because All the food available at one trophic level is not eaten by the animals of the next trophic level. Some of the energy is lost in this manner.

All the food eaten by an animal is not useful, thus a good deal of energy containing food is passed out as waste. A large amount of energy is lost in respiration to drive organism's metabolism, and thus there is not much energy left to support higher trophic levels.