

Topic-ANIMAL ASSOCIATION

- These animals when live in close association, develop a variety of pattern of associations.
- These are mainly of five types-
 1. Parasitism
 2. Commensalism
 3. Mutualism
 4. Symbiosis
 5. Phoresis

1. PARASITISM

- It is an intimate association between two specifically distinct organism in which one partner usually smaller (Parasite) lives on or with in the other usually larger organism (Host) in order to obtain nourishment and at the same time it cause harm to the host.
- One which is benefited is called parasite and other which is loser is called host.



2. Commensalism

- The literal meaning of commensalism is eating at same table.
- It is loose association.
- Organism of different species live together **One animal may receive some benefit called commensal** but the other neither get benefited nor harm from the other.
- it is not obligatory for their existence
- Eg.- Pilot fish and Shark.
- Remora and Shark

Many intestinal protozoa such as *Entamoeba coli* and *Trichomonas sp.*



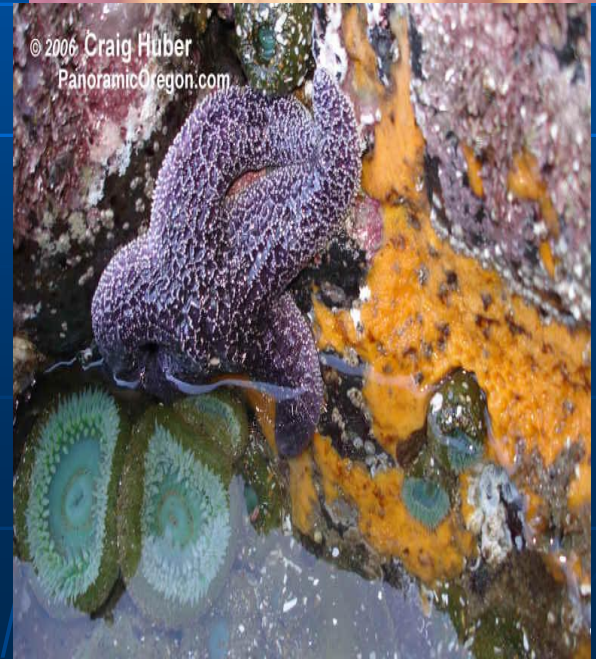
3. Mutualism

- It is an intimate association or relationship of two animals or individuals in which **both the partners are benefited**. However, this relationship is not permanent and obligatory. Either of the partners can break it without any loss to either of them
- Eg.-Hermit crab and sea anemone.
 - Scorpion and Hydroids.
 - ruminal flora



4.SYMBIOSIS

- It comes from Greek word symbioun means to live together.
- it is an intimate or close association or relationship of two individuals in which both the partners are benefited like mutualism but in this, the participating species are dependent on each other for existence and are obligatory
- Eg. -Termites and their intestinal protozoa.
-Zoochorella and Hydra.



5. PHORESIS

- The term means 'travelling together'
- It is temporary association between two individuals or living beings in which there is no metabolic dependence.
- Eg. Bacteria and amoebae on the leg of fly ,or fungal spores on the legs of the beetle.



Predation:

It is usually a short term relationship or association between two individuals in which one (the predator) benefits at the expense of other (the prey).



PREDATOR:

It is an individual which temporarily attacks and destroy animals or plants in order to obtain food, usually feed on smaller or weaker organisms which are their pray. So predators live on capital while parasite live on income. E.g. Cats for rats

PRAY:

They are smaller or weaker organisms or animals. These are usually eaten up by the Predators. Rats for cats



Parasitosis:

It is an association between two individuals in which the infective agent injures the host and causes symptoms and lesions of the diseases. In this type of Parasitism, the disease of infection is denoted by putting suffix –osis (plural –oses) to the name of the parasite

E.g. *Trypanosoma* + osis = Trypanosomosis

Fasciola + osis = Fasciolosis

Theileria + osis = theileriosis

Parasitiasis:

It is an association between two individuals in which one is potentially pathogenic but does not causes symptoms of the diseases. In this type of Parasitism, the disease of infection is denoted by putting suffix -iasis (plural -iases) to the name of the parasite,

E.g. *Trypanosoma* + iasis = Trypanosomiasis

Fasciola + iasis = Fascioliasis

Theileria + iasis = Theileriasis

Parasitiasis	Parasitosis
The host is capable to repair the damage	The host is not capable to repair the damage
The symptoms are not noticeable	The symptoms are noticeable
It is a state of balance	It is a state of imbalance
Trypanosomiasis, Fascioliasis, Theileriasis	Trypanosomosis, Fasciolosis, theileriosis

Infection:

The parasitism by internal parasites.

Tapeworm in the host



Infestation:

The parasitism by external harassing parasites.

Lice on the animals and man



Superinfection:

When an individual harbouring a parasite is reinfected with the same species of parasite, is called superinfection.

Animals infected with *Fasciola* sp.

Autoinfection:

When an infected person is his own direct source of reinfection, is called autoinfection.

It may be external or internal mode – *Enterobius vermicularis* in man