

TYPE OF HOST AND TYPE OF VECTOR

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HOST

- ❖ **Host** An organism which harbours the parasite.

TYPE OF HOST

DEFINITIVE HOSTS

INTERMEDIATE HOSTS

RESERVOIR HOSTS

CARRIER HOSTS

TRANSPORT HOSTS

DEFINITIVE HOSTS

- ❖ **Definitive host or Final host** is one in which a parasite reaches sexual maturity and undergoes reproduction.

Example :

- ✓ Sheep for *Fasciola gigantica*,
- ✓ Dog for *Echinococcus granulosus*,
- ✓ Horse for *Habronema muscae*.

INTERMEDIATE HOSTS

- ❖ **Intermediate host** is one in which some early development of the parasite occurs to produce usually infective stages of it, without reaching to maturity.

- ▶ **Example :**

Intermediate host of plasmodium is human

Intermediate hosts may be divided into **passive intermediate hosts** (snails for trematodes) and **active intermediate hosts** (Tabanus sp. for Trypanosoma evansi))



Passive intermediate hosts (Snails)



Active intermediate host (eg. Tabanus)

RESERVOIR HOSTS

- ❖ **Reservoir hosts** are hosts that harbour a parasite of another host without itself getting affected, but act a source of infection for the original host.

Example :

- ✓ Game animals for the protozoan parasite *Trypanosoma gambiense*.
- ✓ Dog is reservoir host of hydatid disease

CARRIER HOSTS

- ▶ Carrier hosts is a vertebrate animal which had suffered from an infection and in later stage carries the infective organism in its body without showing any clinical sign.

TRANSPORT HOSTS

❖ **Transport or Paratenic host** is one which picks up the infective stages of a parasite either from the intermediate host or directly from the atmosphere for its encystment inside its body, without any development of the stage.

Example –

- ✓ Mice for *Toxocara canis*, *Toxocara cati* or *Toxascaris leonina*
- ✓ Earthworms for *Stephanurus dentatus* or *syngamus trachea*.



VECTOR

- ❖ A vector is a latin word which means bearer.
- ❖ **Vector** is usually a blood – sucking arthropod which transmits the parasite from the infected vertebrate animal to another susceptible vertebrate animal.

TYPE OF VECTOR

MECHANICAL
VECTOR

BIOLOGICAL
VECTOR

MECHANICAL VECTOR

- ❖ **Mechanical vector** is one which transmits the parasite in a short time as such without undergoing any developmental or biological change.
- ▶ **Example -**
- ✓ Tabanid flies transmit *Trypanosoma evansi*.

BIOLOGICAL VECTOR

- ❖ **BIOLOGICAL VECTOR** is one which transmits the parasite after some biological development of the parasite to make it infective for a susceptible host.
- ▶ Example -
 - ✓ Mosquitoes involved in the transmission of various filarial roundworms and malarial parasite, ixodid ticks in piroplasms.



THANK YOU...