

Chapter 07

DIVERSITY IN LIVING ORGANISMS

PLATYHELMINTHES:

Also called flat worms.

- ❖ No coelom present. Bilateral symmetry, triploblastic
- ❖ Free living or parasite
- ❖ Digestive cavity has one opening for both ingestion and egestion.

Examples:

Planaria(free living), liver fluke(Parasitic).

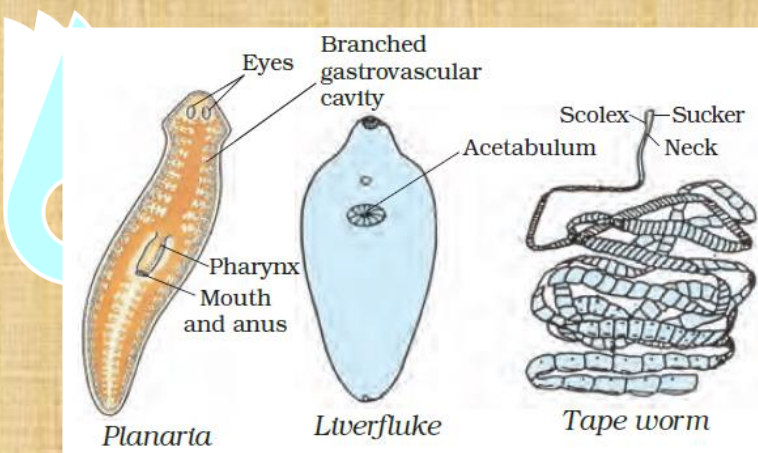


Figure: Platyhelminthes

NEMATODA:

The nematode body is also bilaterally symmetrical and triploblastic. The body is cylindrical rather than flattened. There are tissues, but no real organs, although a sort of body cavity or a pseudocoelom, is present. These are very familiar as parasitic worms causing diseases, such as the worms causing elephantiasis (filarial worms) or the worms in the intestines (roundworm or pinworms). Some examples are shown in Figure.

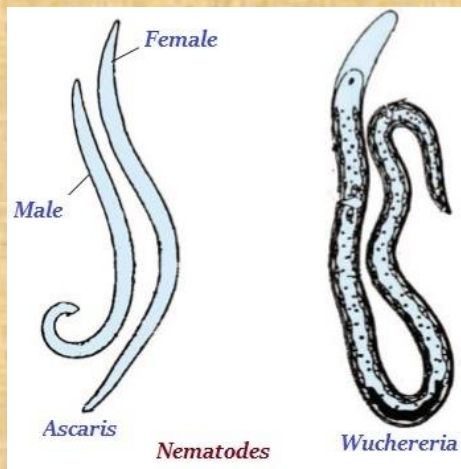


Figure: Nematoda (Aschelminthes)

ANNELIDA:

Annelid animals are also bilaterally symmetrical and triploblastic, but in addition they have a true body cavity. This allows true organs to be packaged in the body structure. There is, thus, extensive organ differentiation. This differentiation occurs in a segmental fashion, with the segments lined up one after the other from head to tail. These animals are found in a variety of habitats– fresh water, marine water as well as land. Earthworms and leeches are familiar examples (see Figure).

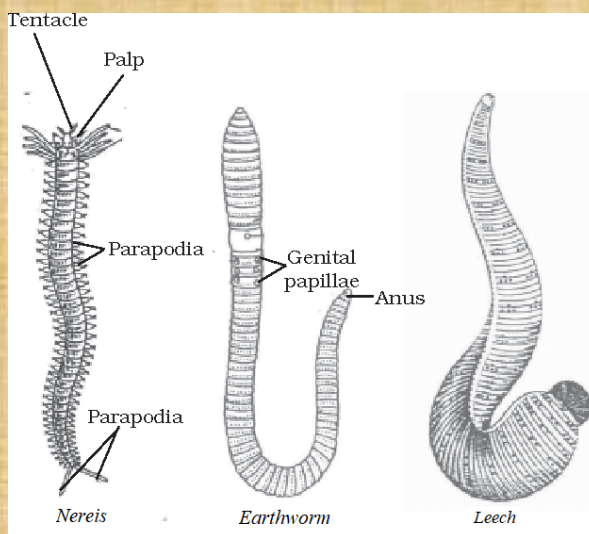


Figure: Annelida

ARTHROPODA:

This is probably the largest group of animals. These animals are bilaterally symmetrical and segmented. There is an open circulatory system, and so the blood does not flow in well-defined blood vessels. The coelomic cavity is blood-filled. They have jointed legs (the word 'arthropod' means 'jointed legs'). Some familiar examples are prawns, butterflies, houseflies, spiders, scorpions and crabs.

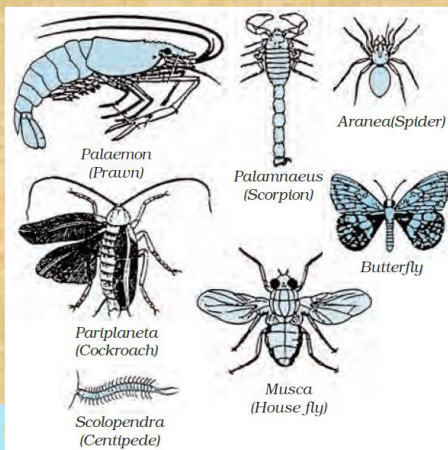


Figure: Arthropoda

MOLLUSCA:

This is the second largest animal phylum. Mollusca are terrestrial or aquatic having an organ-system level of organisation. They are bilaterally symmetrical. Triploblastic and Coelomate animals. Body is covered by a calcareous shell and is unsegmented with a distinct head, muscular foot, and visceral hump. They have an open circulatory system and kidney – like organs for excretion.

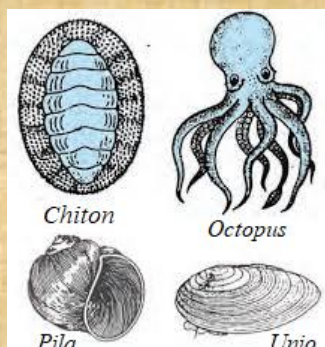


Figure: Mollusca