

Phylum Aschelminthes

Learning Outcomes

Students should be able to:

- Describe the unifying characteristics of members of phylum aschelminthes
- Describe how aschelminthes carry out their life functions
- Describe the ecological roles of aschelminthes

Phylum Aschelminthes also called Nematoda

Round worms

Examples: cavity worms, sac worms,
Ascaris, nematodes, & rotifers

Habitat

- Free-living on land, marine and fresh water
- Parasites on plants, animals, and humans

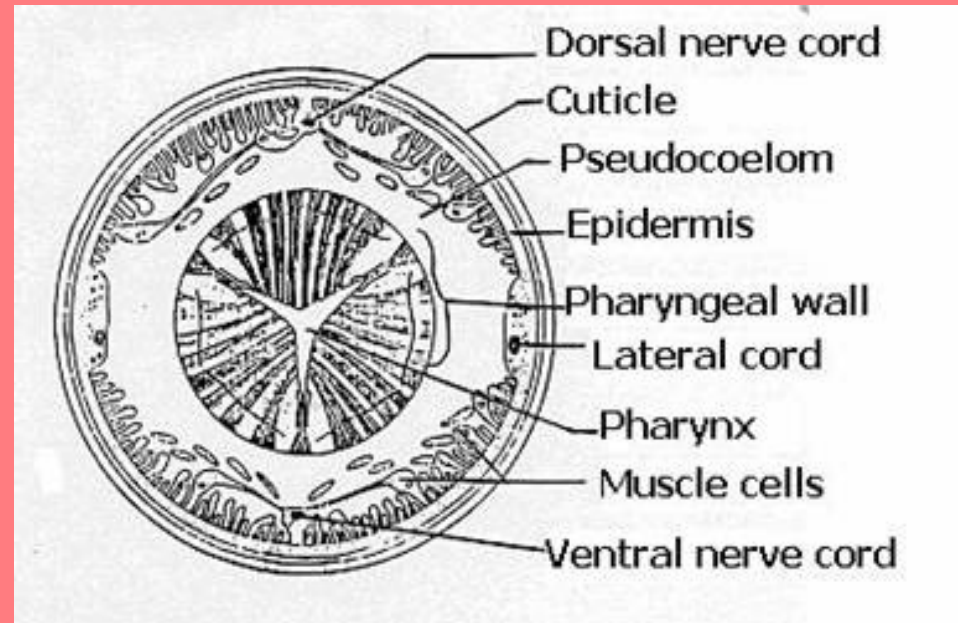


General Characteristics (same as platyhelminthes)

- Bilateral symmetry
- 3 cell layers (ectoderm, mesoderm, endoderm)
- Organ level of organization
- Exhibit cephalization

General Characteristics unique to Aschelminthes

- Have a complete one-way digestive system with a mouth and an anus
- Have a 'tube within a tube' arrangement called a pseudocoelom



Pseudocoelom

- Body cavity between the intestine and the body wall
- Contains fluid which creates hydrostatic pressure
- When muscles in the body wall contract the pseudocoelom gets smaller and no pressure is applied to the intestine

Pseudocoelom (2)

- Contains the reproductive organs (where sperm and egg are produced)
- Stores wastes
- Fluid inside distributes nutrients and oxygen to the tissues (acts as circulatory & respiratory systems)

Excretory System

- Nitrogenous wastes are enter the 2 excretory tubules
- Excretory tubules empty into an excretory pore at the anterior (head) end of the worm

Digestive System

- Ingestion: food enters the mouth through the pharynx
- Digestion: food is passed into the intestine where nutrients are broken down and absorbed
- Elimination: undigested food wastes leave through the anus

Ascaris Life Cycle

