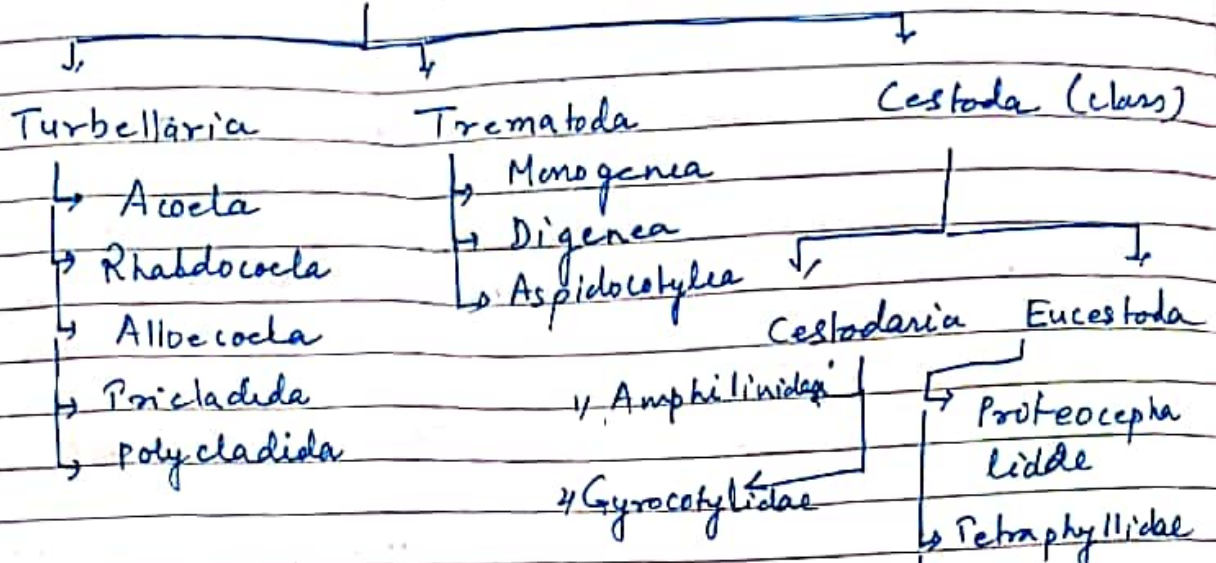


PLATYHELMINTHES

General characters - Platyhelminthes includes worms or flat worms having acoelomate, triploblastic, bilaterally symmetrical, vermiform, dorsoventrally flattened organisms having following characteristics feature -

- ① Platyhelminthes have a dorsoventrally flattened body (leaf like or ribbon like)
- ② They are bilaterally symmetrical animals.
- ③ They have a triploblastic body, with ectoderm, endoderm and mesoderm.
- ④ They are acoelomate animals.
- ⑤ Most of them are parasitic only few are free living.
- 6) Body unsegmented
7. Adhesive structures like hooks, spines and suckers are present.
- ⑧ Mouth opens into an incomplete digestive system.
- ⑨ Respiratory, circulatory and skeletal system absent.
- 10) Excretory system includes lateral canals and protonephridia (Flame cells)
- 11) Primitive nervous system.
- 12) Sense organs simple. eye spots in some cases or photoreceptor cells are present.
- 13) Mostly hermaphrodite (Monoecious) with a complex reproductive system well developed with gonads, gonoducts and accessory organs
- 14) Fertilization internal (cross or self)
- 15) Development Direct or indirect, with a large no of larva endoparasites in vertebrates and invertebrates.

Classification of Platyhelminthes (Phylum)



ORDERS

Characteristics of class

Turbellaria →

- 1) Non parasitic, free living
Worms called planarians
- 2) Aquatic in habitat.
- 3) Unsegment, flattened body
containing muscles
secreting cells and rod
shaped bodies called
rhabdites.
- 4) Ventral Mouth.
- 5) Suckers absent.
- 6) Hermaphrodite, development
direct.
eg - Planaria

Characteristics of Trematodes -

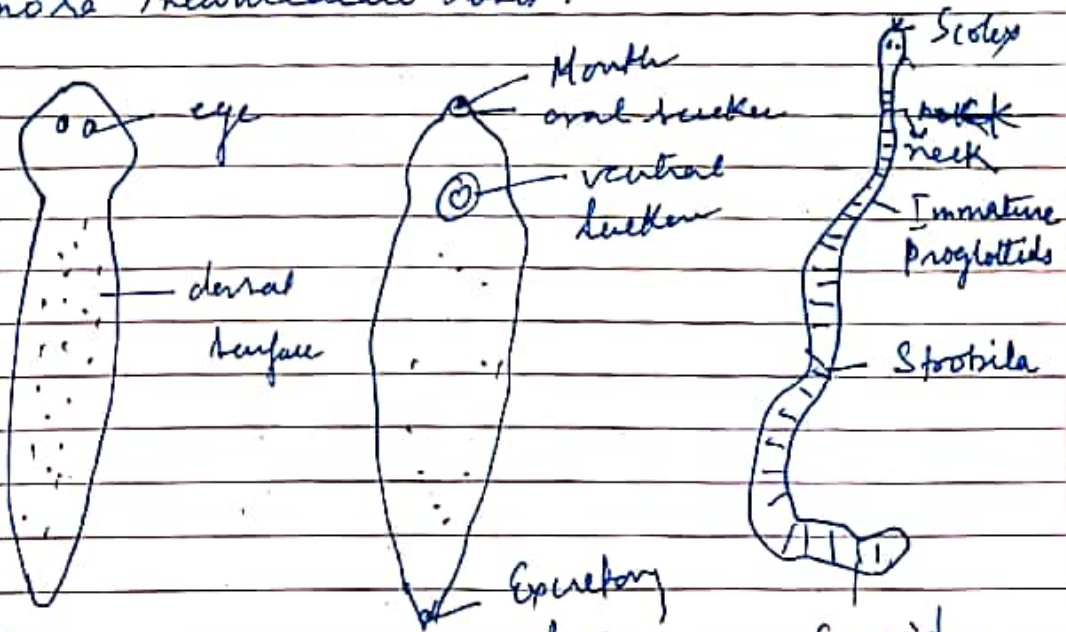
- 1) Endo or Ectoparasites called. flukes in common
worms.
- 2) Dorsoventrally flattened leaf like structure.
- 3) Suckers and hooks present.

- 4. Digestive tract incomplete.
- 5. Monocoelous, development direct or indirect.

eg - Fasciola hepatica
Paragonimus, Schistosoma etc.

General characters of Cestoda -

- 1) Endoparasitic flatworms generally known as tapeworms.
- 2) Body elongated, flat ribbon like, segmented body.
- 3) Scolex (Head) with suckers, hooks or both.
- 4) Alimentary canal, sense organs absent.
- 5) ~~Each~~ Body divided into 3 parts head or scolex a short ~~neck~~ neck and body having a number of proglottids. immature segments called proglottids and mature segments gravid segments.
- 6) Life cycle complicated involving one or more intermediate hosts.



Planaria
eg - Turbellaria

Fasciola hepatica
eg - Trematoda

Gravid proglottid
Tape worm
eg - Cestoda

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