

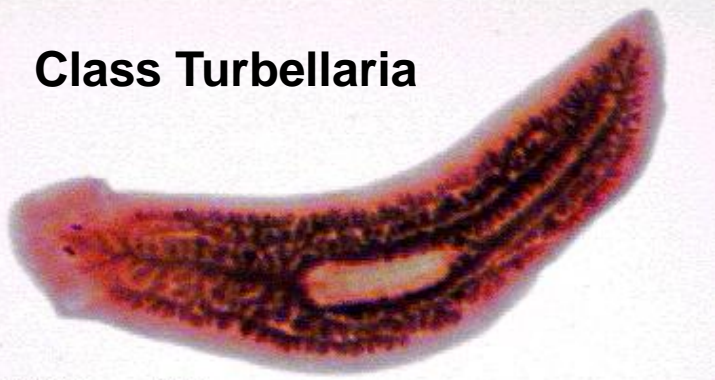
FLATWORMS

Kingdom Animalia

Phylum Platyhelminthes

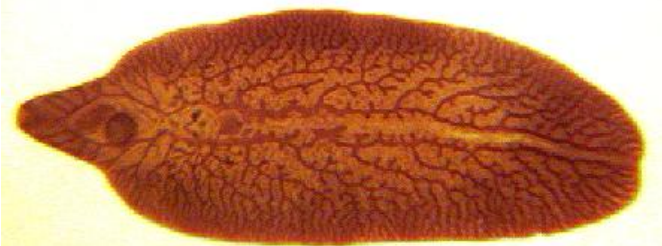
Ex. Planaria, flukes and tapeworms

Class Turbellaria



BIODIDAC © J. Houseman, Univ. d'Ottawa

Class Trematoda



BIODIDAC © J. Houseman, Univ. d'Ottawa

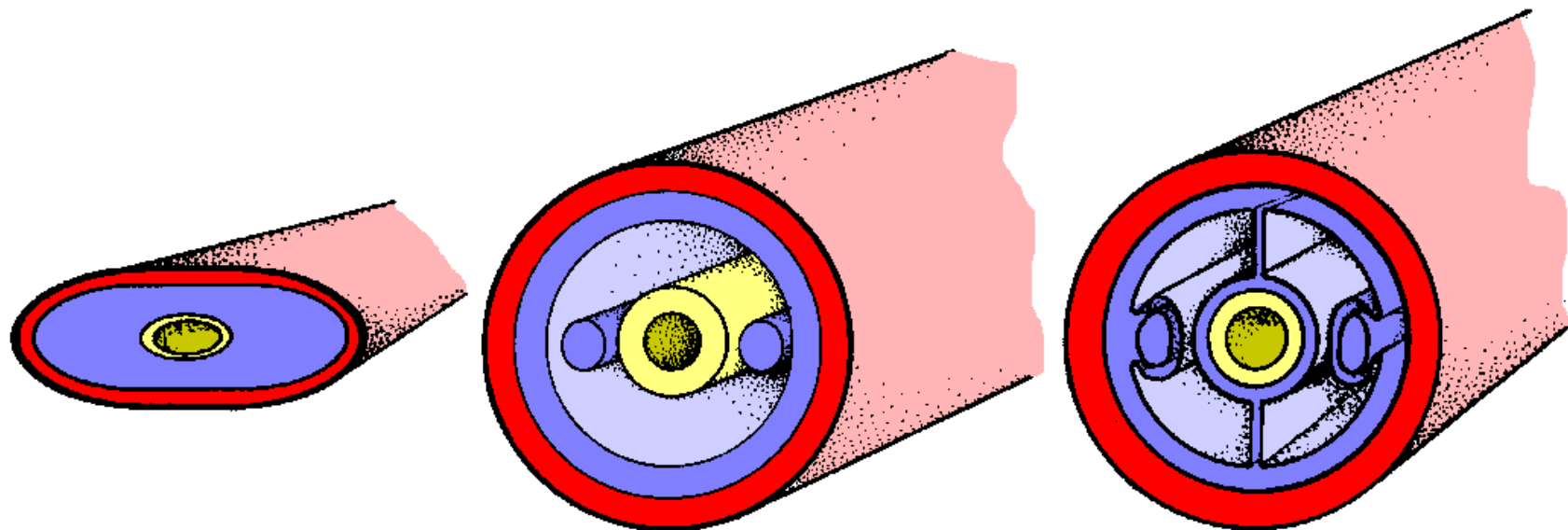
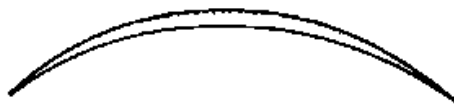
Class Cestoda



Characteristics of Platyhelminthes

- Body type: bilateral
- Ecological roles:
 - Parasitic
 - Food source
 - Eat dead animals
 - saprophytes
- Body organization:
3 layers – ectoderm, mesoderm (first), endoderm
- Body Cavity: acoelom



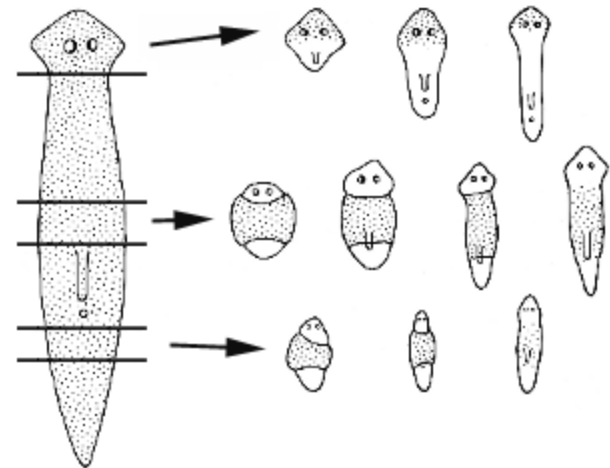
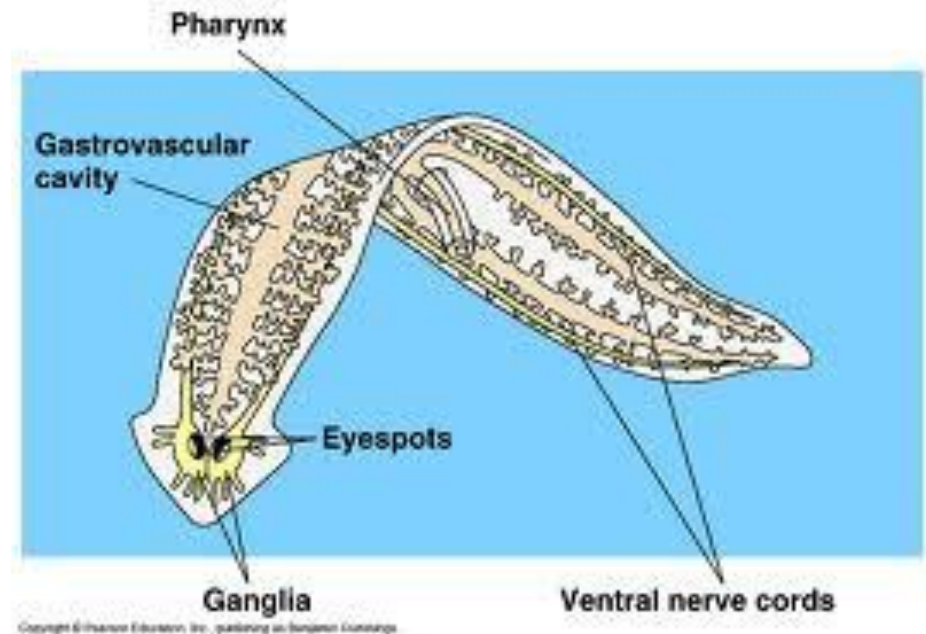


Livingstone © BIODIDAC

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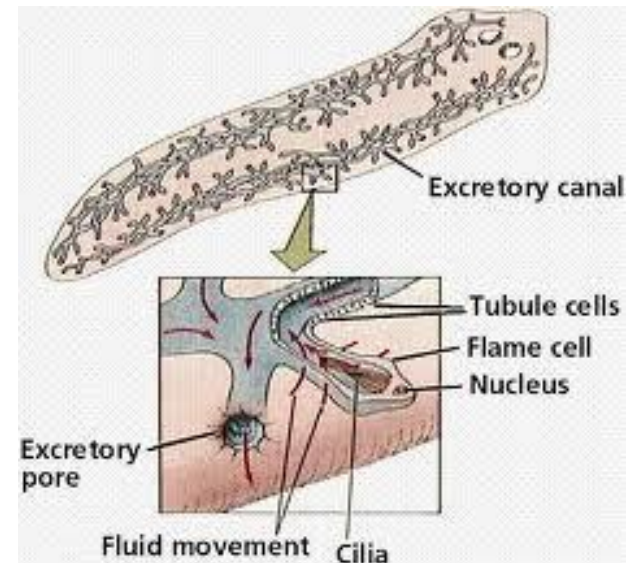
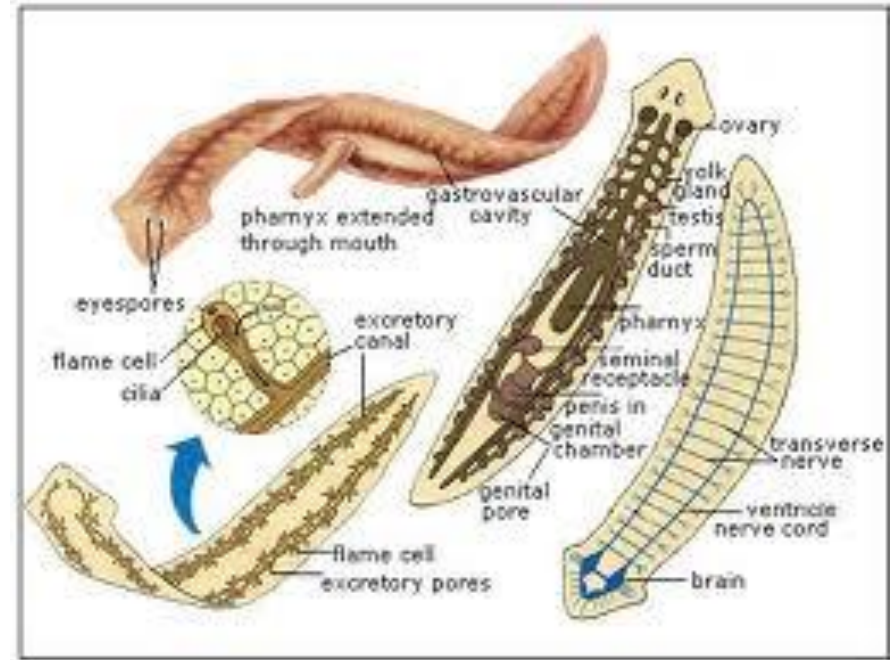
Characteristics continued

- Digestive system:
mouth &
gastrovascular cavity
- Reproduction:
 - Sexual:
hermaphroditic –
cross fertilization
occurs between 2
worms
 - Asexual:
fragmentation



Characteristics continued:

- Circulation: diffusion
- Nervous system:
 - Cephalization (**first**) & nerves
 - Eyespots, auricles, sensitive to light & chemicals
- Respiration: diffusion through skin
- Excretion: tubes open to outside, flame cells (rid of excess H_2O) & mouth
- Habitat: host (intestine) & freshwater



Additional information:

Free living

ex) **Planaria** – freshwater

- Stores food as fat
- Brain coordinates movement & capable of learning its way through a maze
- Able to respond to light & chemicals

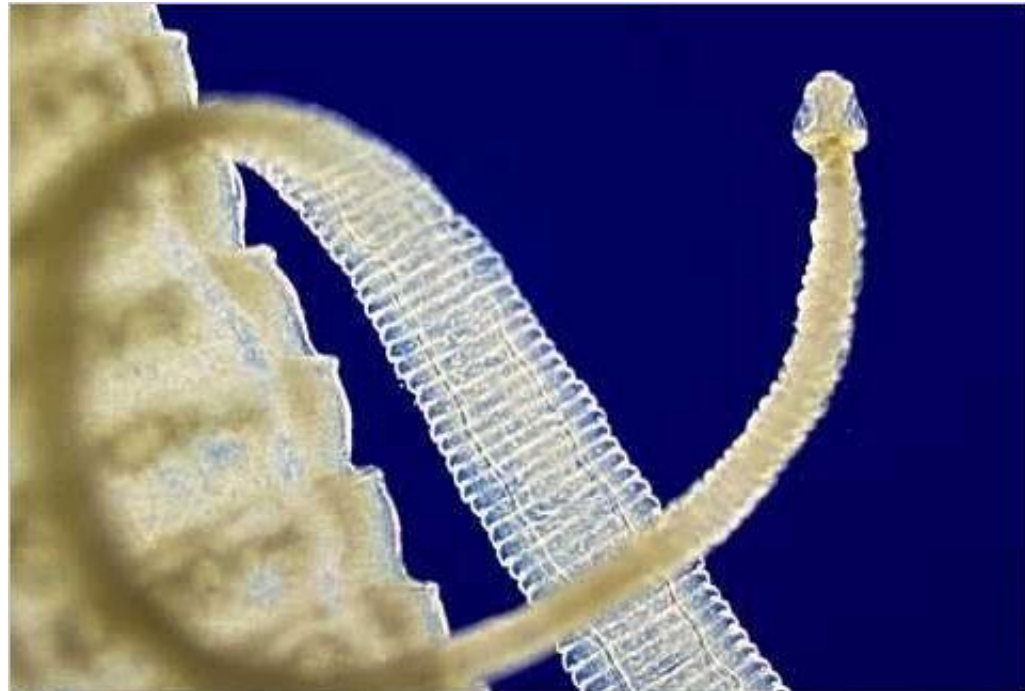
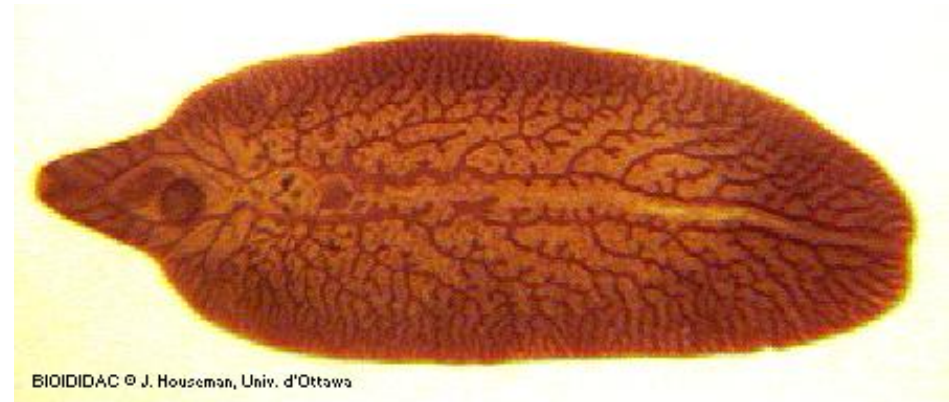


Additional information:

Parasitic

Ex) flukes and tapeworms

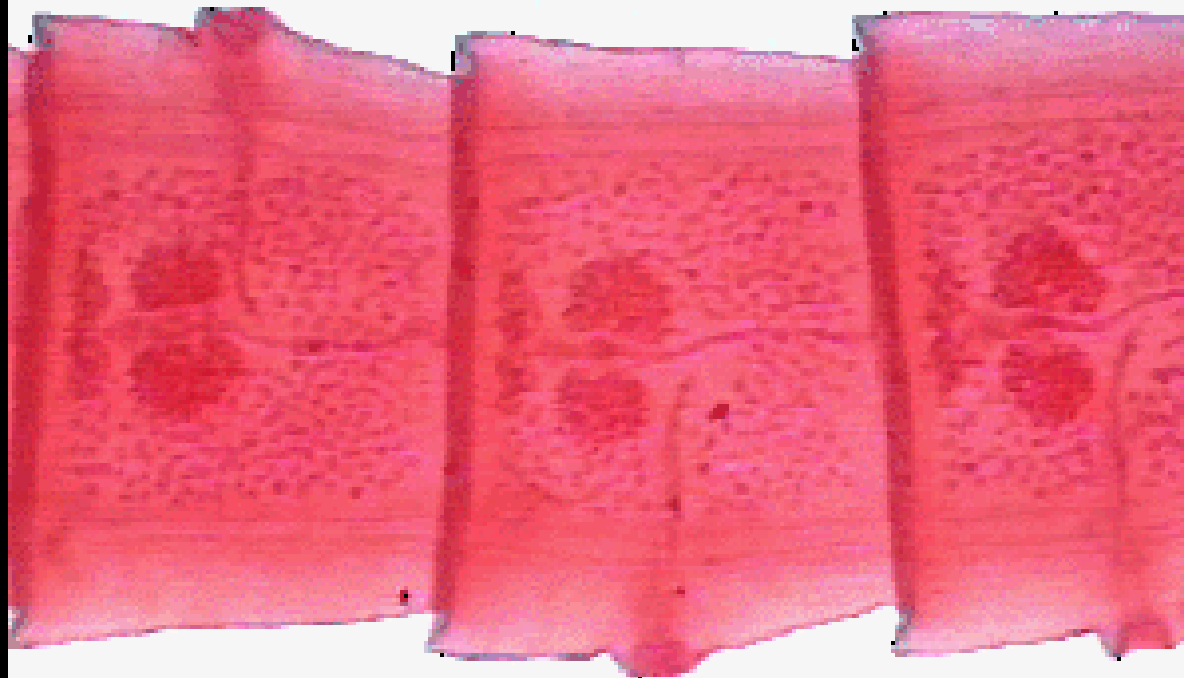
- Lives in digestive tract & absorbs digested food from host so, **NO digestive tract!**
- This leaves more room for reproduction – capable of producing 1,000s of eggs.



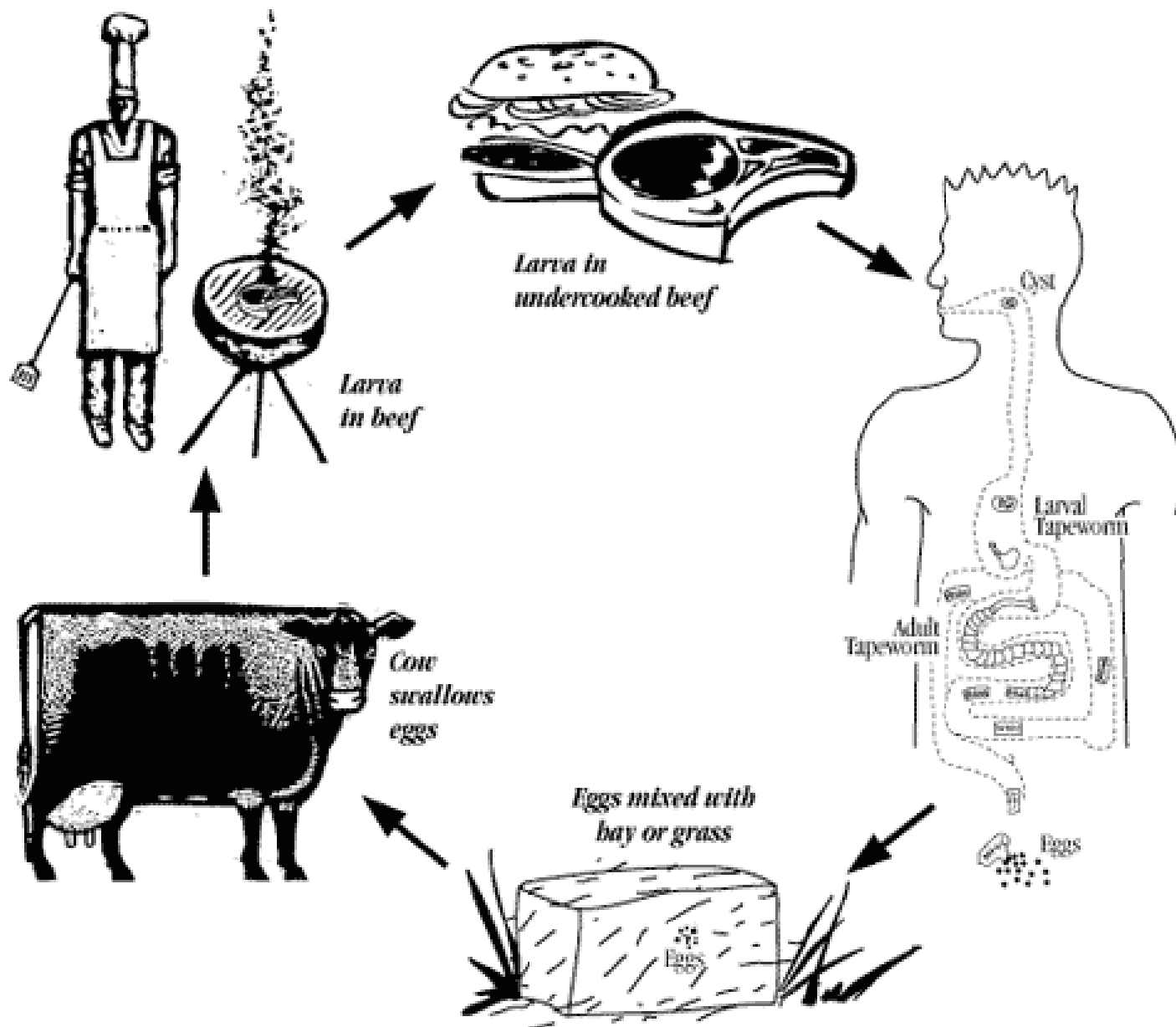
Class: Cestoda - Scolex (head) of a tapeworm

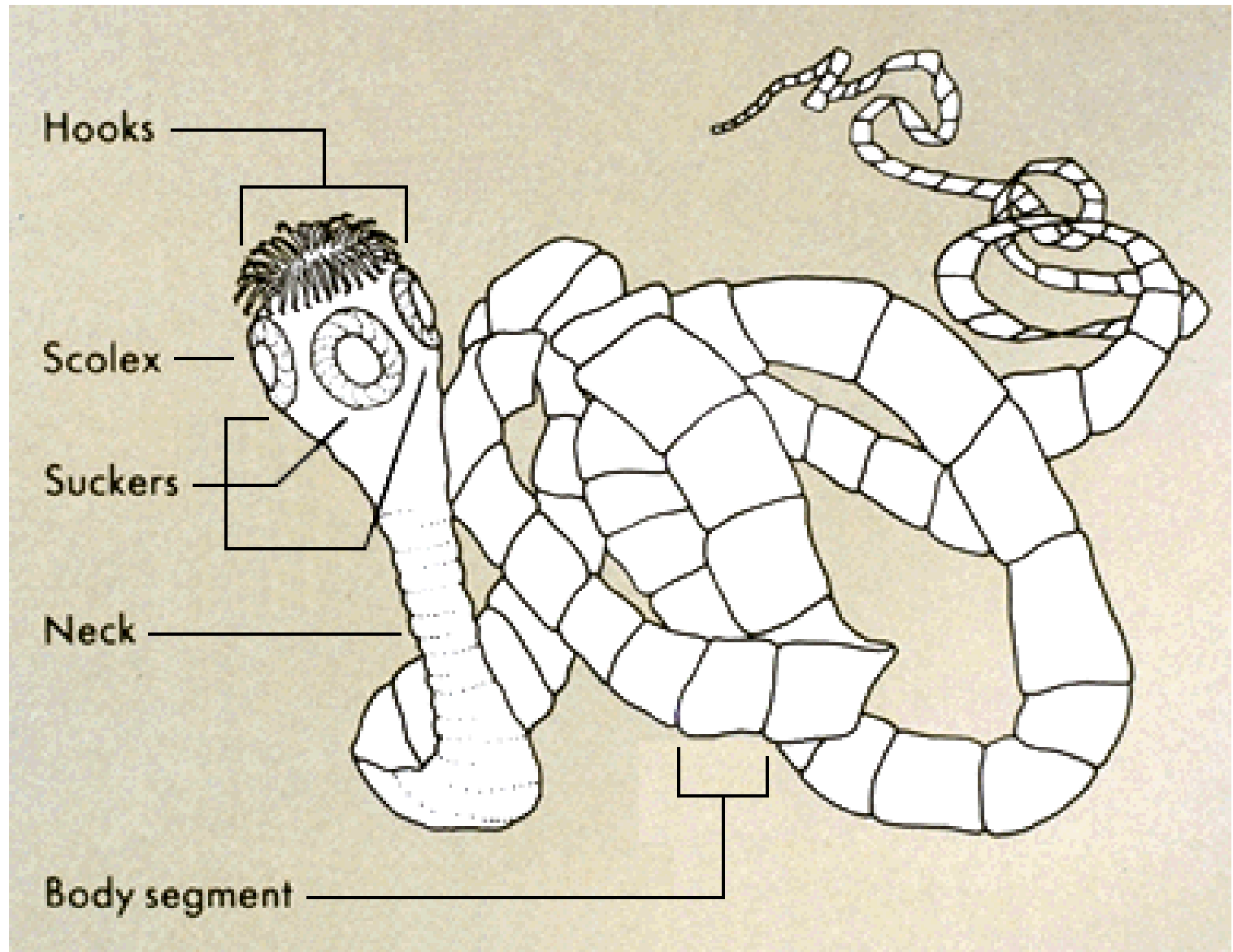


Taenia
mature proglottids



(by P.W. Pappas and S.M. Wardrop)





DOCTOR FUN

2 April 96

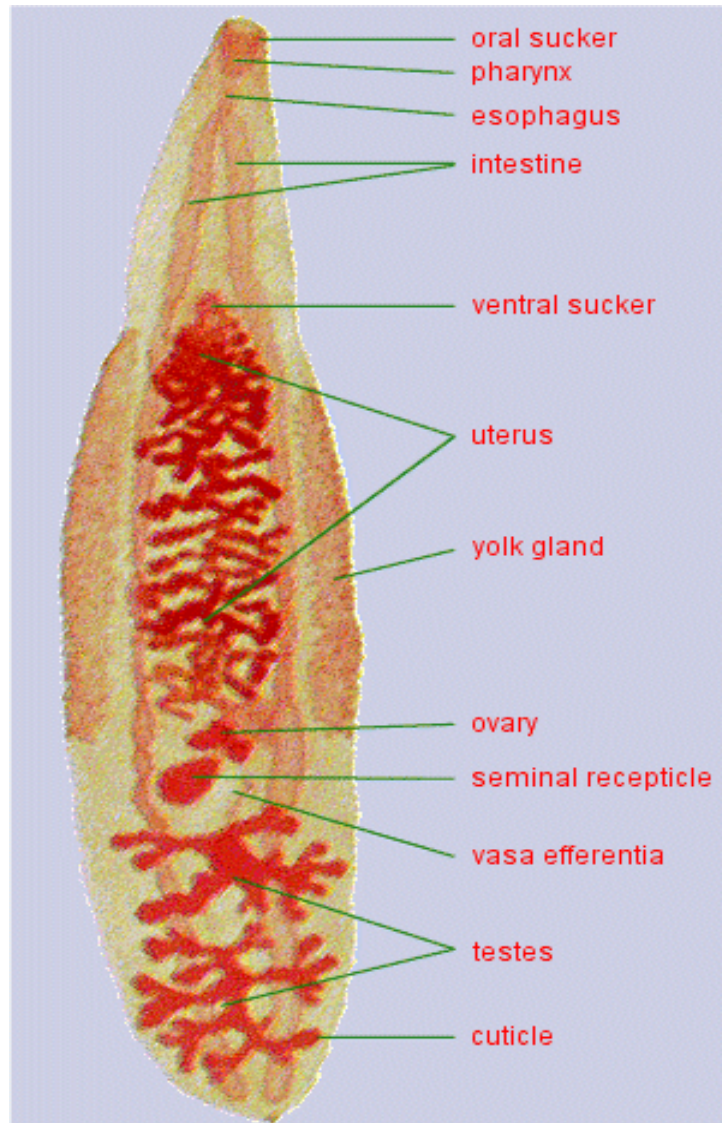


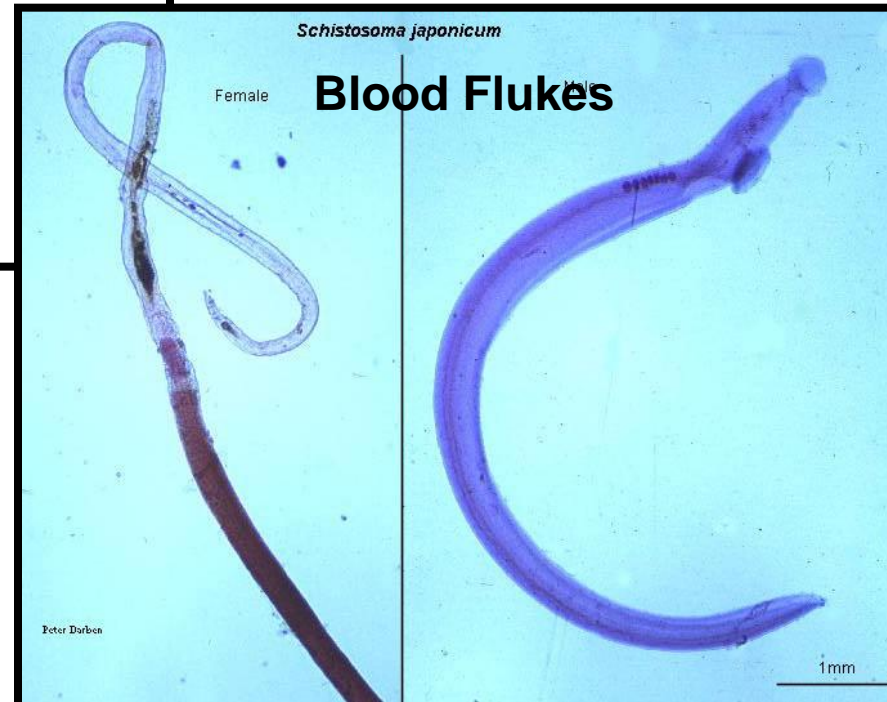
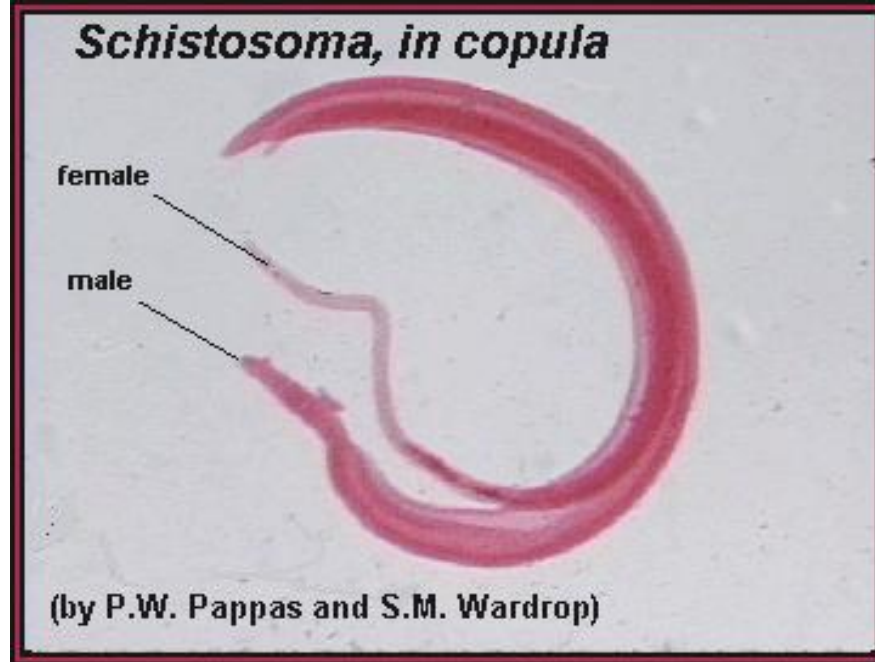
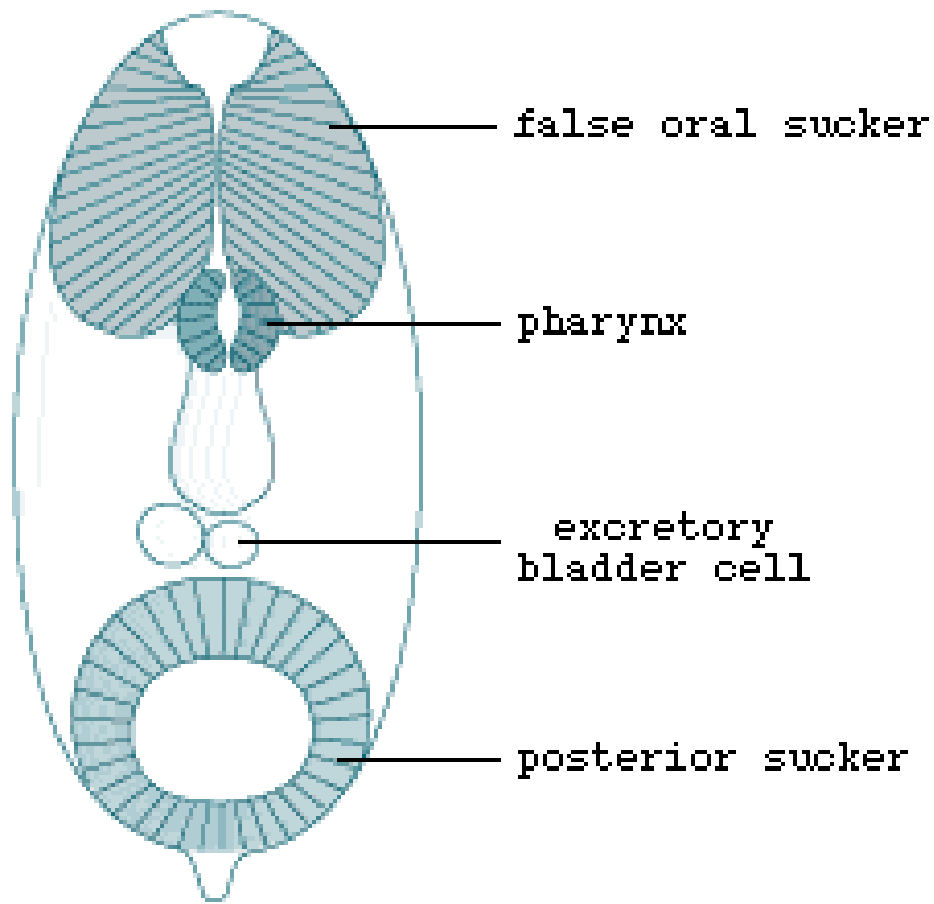
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<http://sunsite.unc.edu/Dave/dr-fun.html>

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Opinions expressed herein are solely those of the author.

Tapeworm amusement parks

Class: Trematoda – Chinese liver fluke





Fasciola hepatica

Adult



13mm



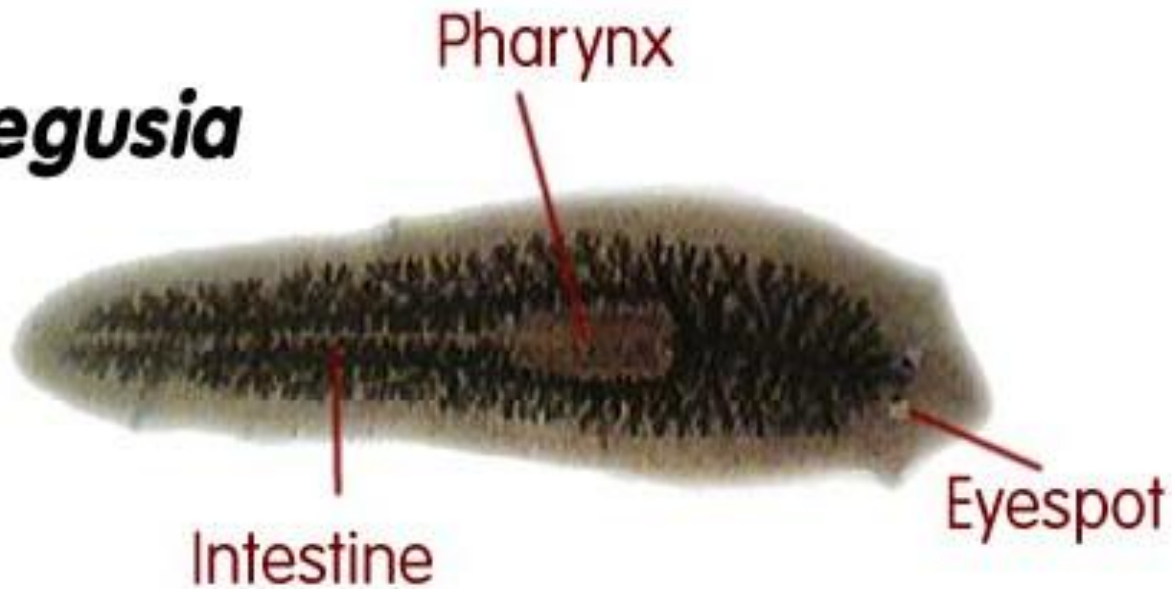
Removal of a liver fluke:

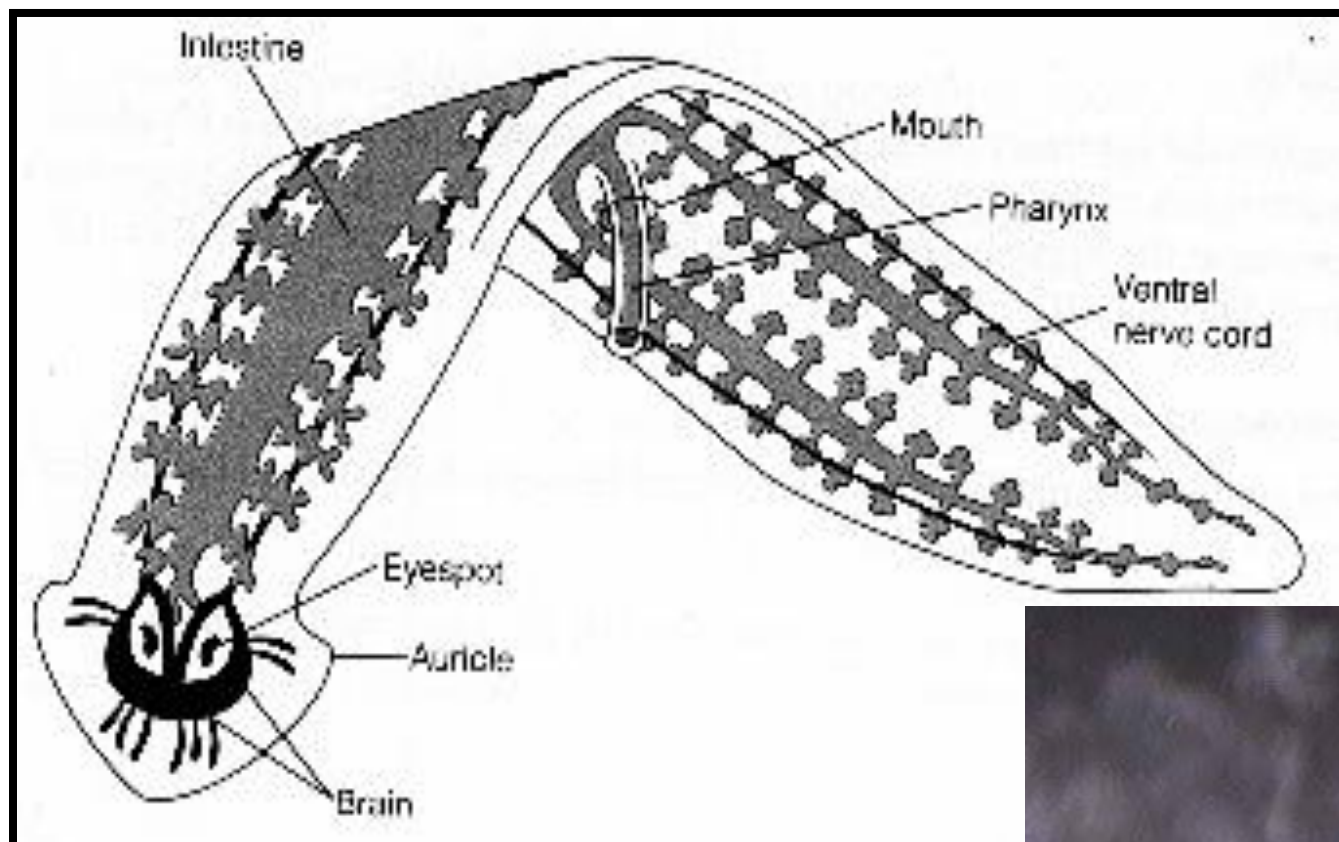
<http://www.youtube.com/watch?v=1XId87aphbQ>

Class Tubellaria

- Free living
- Protrusible proboscis

Degusia





Marine Flatworms



[http://www.youtube.com/watch?v=HekwSO6dBG0
&feature=related](http://www.youtube.com/watch?v=HekwSO6dBG0&feature=related)



WATCH PLANARIA MOVING!

Planaria:

<http://www.youtube.com/watch?v=A6N8KZqGAJg>

Regeneration in Planaria (start at 1 min):

<http://www.youtube.com/watch?v=MFpotuZ-j2M&feature=related>

Worm inside your face:

<http://www.youtube.com/watch?v=GiHtUFuGgSA&feature=related>

Land Planarian in Borneo:

http://www.youtube.com/watch?v=Fq_aSR5FK0Y