



Tikrit University
College of Veterinary Medicine

Lect.6: biology

Subject name:Fasciola

Subject year:First stage

Lecturer name:

Assist.Lecturer. Hanen omar

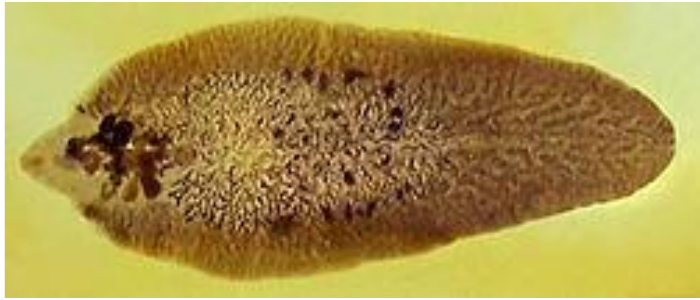
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SCAN ME

Lecturers link



Kingdom: Animalia

Phylum : Platyhelminthes

class: Trematoda

Order: Echinostomida

Family: Fasciolidae

Genus: Fasciola

Species: Fasciola hepatica

Fasciola hepatica, also known as the **common liver fluke** or **sheep liver fluke**, is a parasitic trematode (fluke or flatworm, a type of helminth) of the class Trematoda, phylum Platyhelminthes. It infects the livers of various mammals, including humans, and is transmitted by sheep and cattle to humans the world over. The disease caused by the fluke is called fasciolosis or fascioliasis

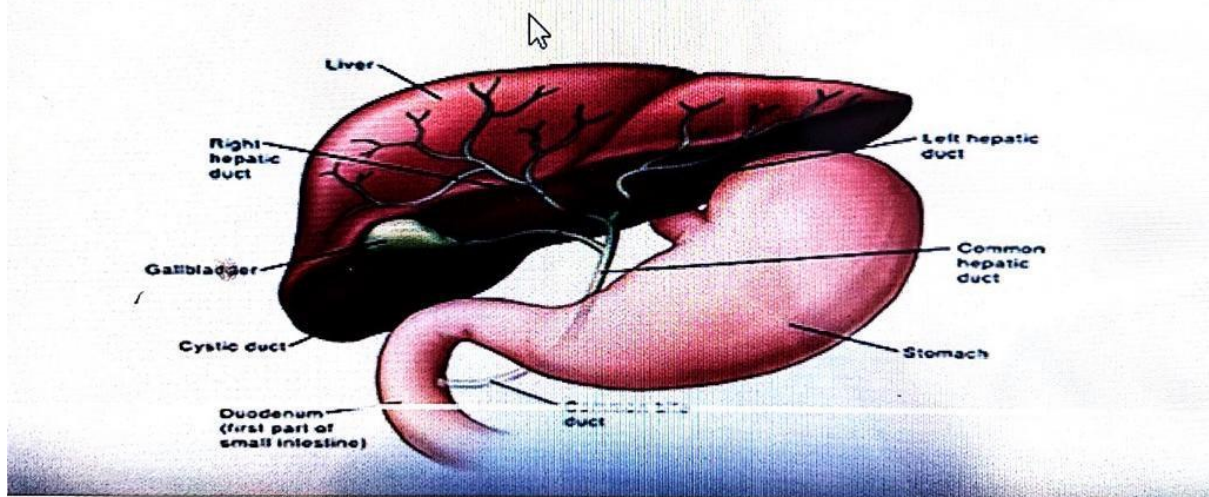


Fasciola Hepatica

Common name: Sheep liver fluke

Habitat

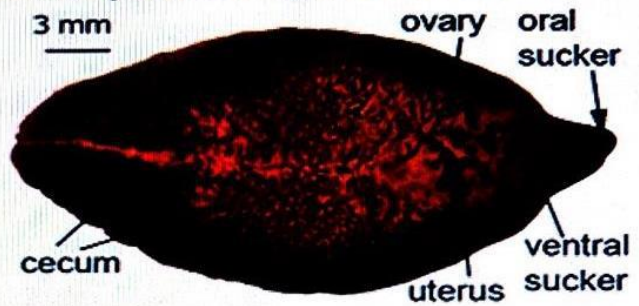
Resides in the **liver and biliary passages** of the definitive host



Morphology

Adult Worm

- It is a large leaf-shaped fleshy fluke
- It has a **conical projection** anteriorly containing an **oral sucker** and is **rounded posteriorly**
- It is hermaphrodite



Egg

The eggs are large, ovoid, operculated



Fasciola hepatica

- Common name: The sheep liver fluke
- Habitat: Bile duct of liver.
- Route of infection: Man eat aquatic plants with encysted metacercariae.
- Definitive host: Usual host sheep, infects liver of various mammals, **including humans**.
- Intermediate host: Fresh water snails.
- Infective stage: Encysted metacercariae on vegetations.
- Diagnostic stage: Eggs in stool specimen.
- Disease: Fascioliasis.

Schistosoma

Kingdom: Animalia

Phylum: Platyhelminthes

class: Trematoda

Order: Diplostomida

Family: Schistosomatidae

Genus: Schistosoma

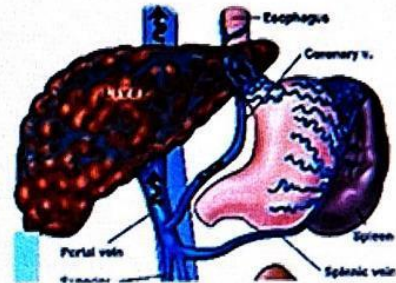
Schistosoma: is a genus of trematodes, commonly known as blood flukes. They are parasitic flatworms responsible for a highly significant group of infections in humans termed schistosomiasis

Schistosomes

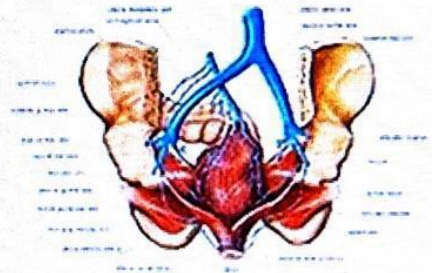
- Schistosomes are **dioecious**, (sexes are separate)
- Schistosomiasis is a water-borne disease

Habitat:

In the inferior mesenteric vein (*S. mansoni*)



In the pelvic venous plexuses (*S. haematobium*)



Morphology

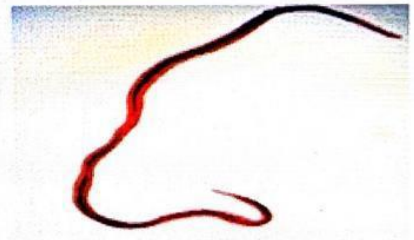
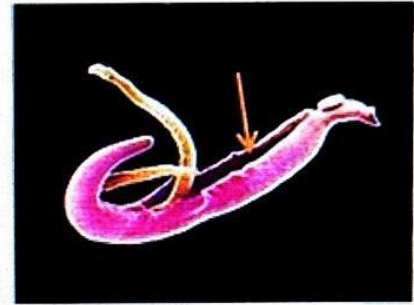
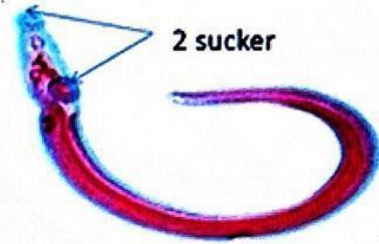
❖ Unsegmented body with 2 suckers

❖ Male

- Is smaller and broader than female
- **Gynecophoric canal** begins immediately behind the ventral sucker and extending to the caudal end, in which the female worm is held

❖ female

The adult **female** is long and slender

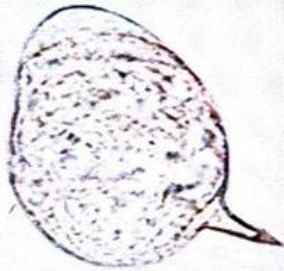


Eggs

- Elongated **non-operculated**,
- contains ciliated embryo (**miracidium**)

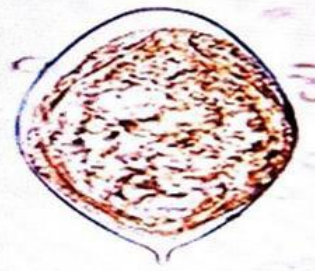


S. mansoni



lateral spine at one pole

S. haematobium



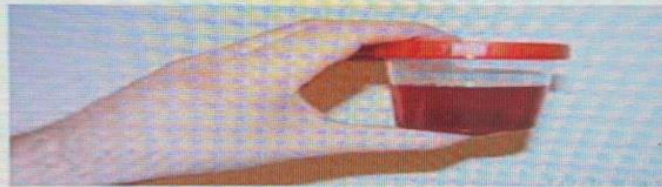
terminal spine at one pole

Clinical features

Swimmer's itch (Cercarial Dermatitis)



Hematuria



Diagnosis



Detection of eggs in urine and stool

biopsy

detection of antigen and antibody

