

Fasciola – As pathogenic helminth



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Fasciola hepatica



- Fasciola hepatica ,also known as the common liver fluke or sheep liver fluke,is a parasitic flatworm of the class trematoda,phylum Platyminthes that infects the liver of various mammals,including humans.
- The disease caused by the fluke is called fascioliasis or fasciolosis.

Fasciola hepatica



Fasciola hepatica is cosmopolitan in distribution through out sheep and cattle raising areas of the world.

Classification—

Phylum	;	Platyhelminthes
Class	:	Trematoda
Order	:	Digenia
Family	:	Fascioliodae
Genus	:	Fasciola
Specise	;	heatica

Fasciola hepatica

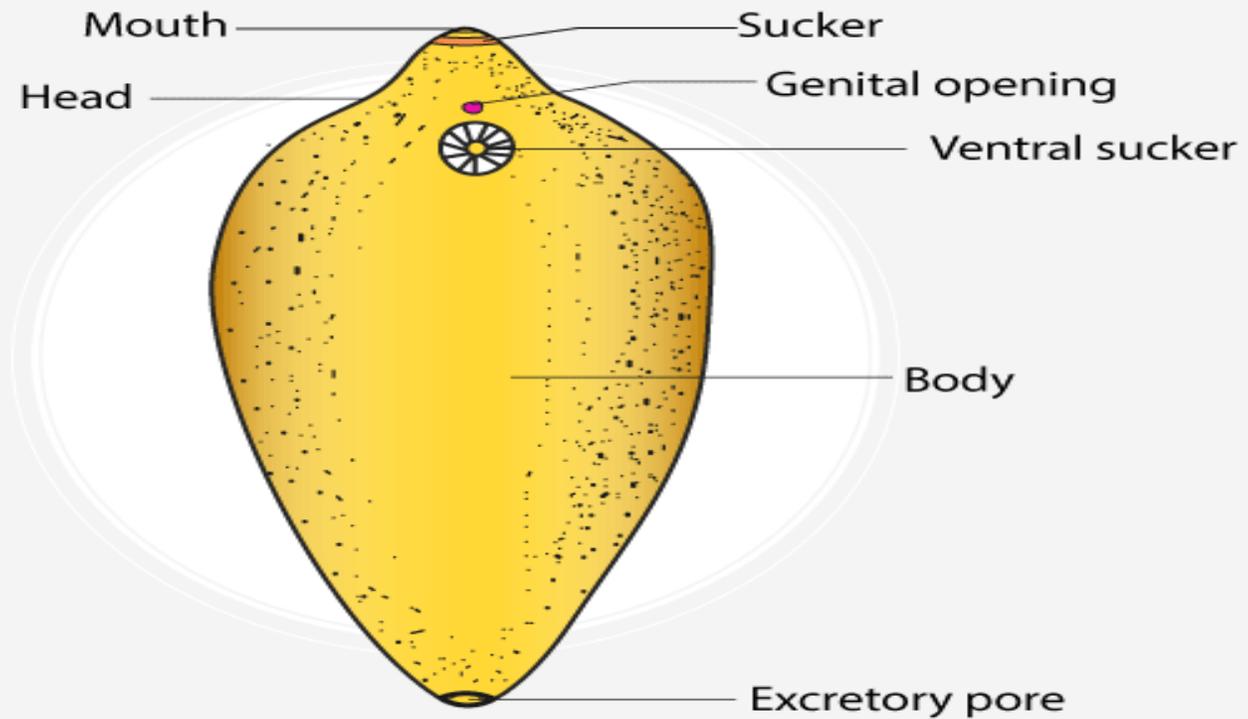


- Fasciola inhabits the liver, and bile passage of vertebrates like cattle, sheep, goat, rabbit, dog, pig and man.
- It is leaf shaped, broader anteriorly than posterior and has a cone shaped projection at anterior end.
- Its life cycle is complex and completed in two hosts and includes many larval stages.

Fasciola hepatica



LIVER FLUKE



Fasciola Hepatica

Fasciola hepatica



- Primary host– Sheep
- Secondary host– Snail
- Larval stages are-
- Miracidium
- Sporocyst
- Redia
- Cercaria
- Metacercaria

Larval forms of Fasciola hepatica



Life cycle of fasciola hepaticass



Sheep ingests cysts, juvenile flukes excyst and migrate through the liver of the host



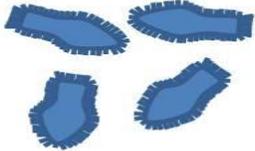
Migration of juveniles takes about 6-8 weeks to reach the bile ducts. PPP is 10-12 weeks from ingestion of the cysts until eggs are seen in the faeces

Adult flukes reside in the bile ducts, and lay their eggs

Fluke eggs are passed in faeces



Eggs can hatch in 9-10 days under ideal conditions (22 – 26°C)



Miracidium hatch then have 3 hours to find a snail intermediate host



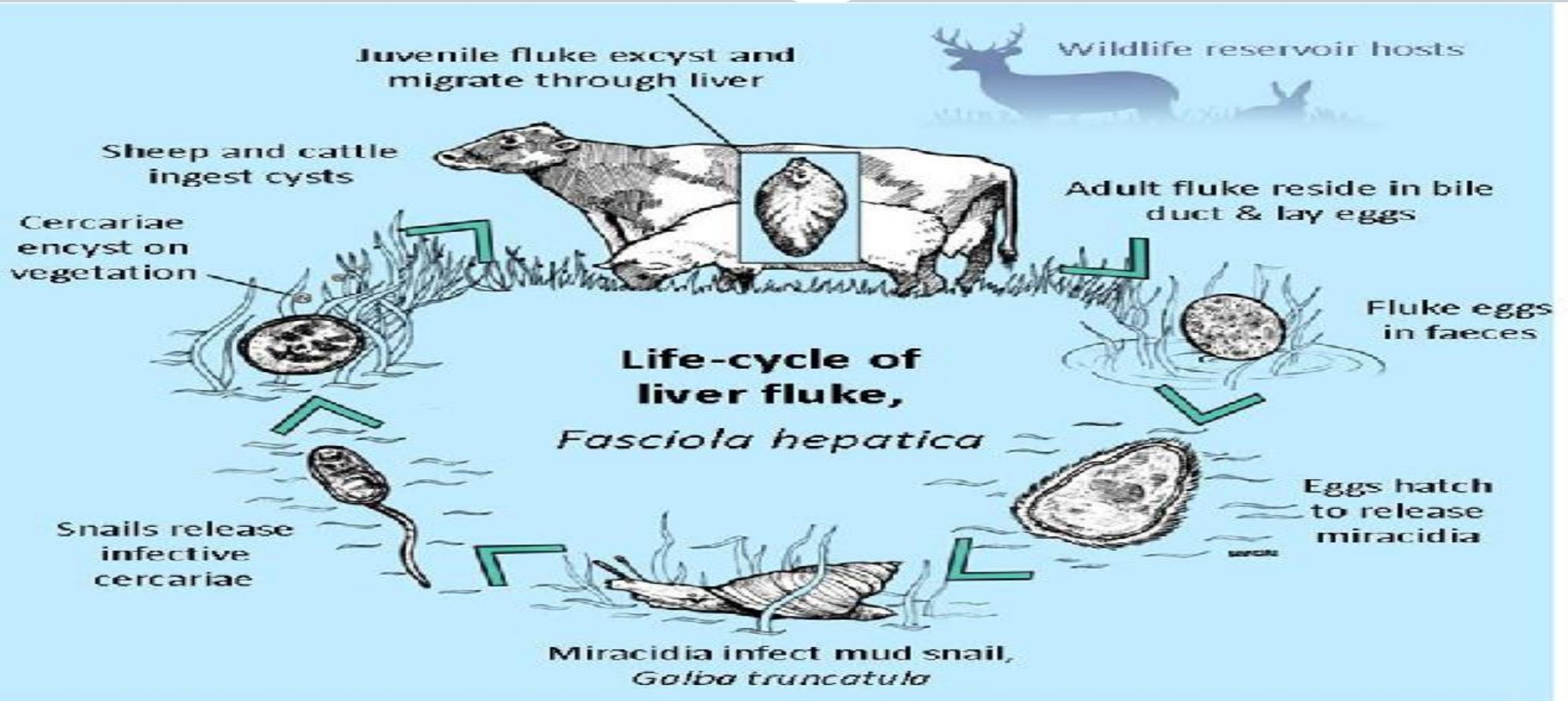
Mud snail – *Galba truncatula*.

Miracidium to metacercariae takes about 6-7 weeks

Cercariae leave the snail when the temperature and moisture levels are suitable, and encyst as metacercariae on pasture



Life cycle of fasciola hepatica



Fasciola hepatica



Pathogenesis

- Fascioliasis or liver rot
- When sheep are infected by the liver fluke-
Fasciola hepatica the liver of the sheep is seriously affected in structure and function.
- This disease is known as liver rot or fascioliasis.

Thank You

