

Fasciola – As pathogenic helminth



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Semester - VI, Paper CC-14

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

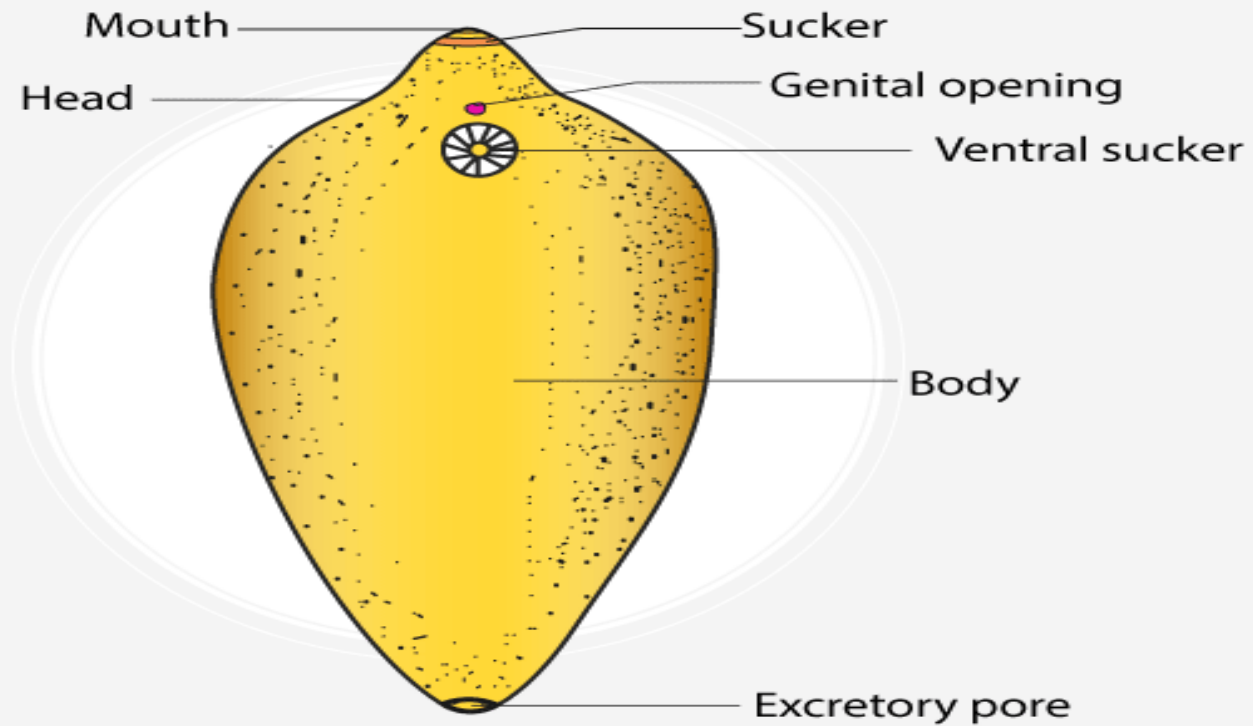


- Fasciola inhabits the liver, and bile passage of vertebrates like cattle, sheep, goat, rabbit, dog, pig and man.
- It is leaf shaped, broader anteriorly than posterior and has a cone shaped projection at anterior end.
- Its life cycle is complex and completed in two hosts and includes many larval stages.

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



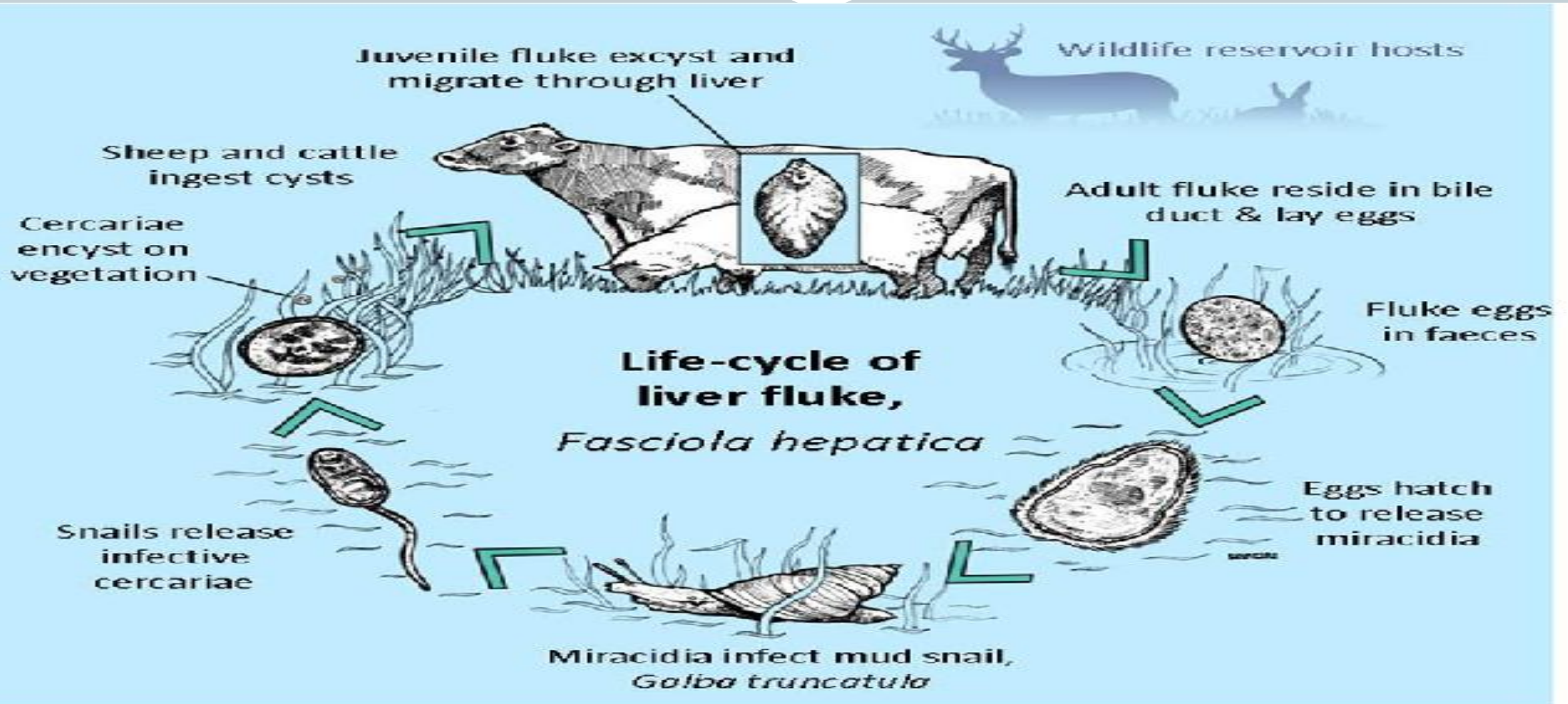
Mud snail – *Galba
truncatula*.

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



Miracidium to metacercariae
takes about 6 -7 weeks

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

