

Fasciola hepatica (The Sheep Liver Fluke)

INTRODUCTION: The trematodes, belonging to the class Trematoda, are all parasitic. They are commonly called 'flatworm' or 'flukes' (Anglo Saxon fluc = flat), on account of their flat, leaf-like form. Flukes inhabit liver and bile duct of vertebrates like cattle, sheep, goat, rabbit, pig, dog and man. *Fasciola hepatica* is the common liver-fluke of sheep. *F. gigantica* (*F. indica*), the liver fluke of cattle, is however a more familiar species in India. *Fasciolopsis buski* occurs as an intestinal parasite in man and pig, while *Clonorchis* (= *Opisthorchis*) *sinensis*, the Chinese liver fluke is the causative organism of clonorchiasis in human beings in Oriental countries like Japan, Vietnam, Korea and South-eastern China. The present account mostly relates to *Fasciola hepatica*, the sheep liver fluke which is one of the most widely studied trematodes. Its structure and life history are well-known, but physiology is not much understood, because it is difficult to keep the parasites outside their hosts in a situation where they may be observed

and used in experiments. There are 14 species of Liver fluke in world.

FASCIOLA HEPATICA

SYSTEMATIC POSITION:

Phylum: Platyhelminthes

class: Trematoda

order: Digenea

Family: Fasciolidae

Genus: Fasciola

Species: F. hepatica

Fasciola hepatica, the sheep liver fluke was the ~~first~~ first digenetic trematode whose life history was completely worked out by Thomas in (1883). It has a cosmopolitan distribution throughout sheep and cattle raising areas of the world. It is of great parasitological and pathological importance as it the causative organism of fascioliasis, a disease that causes immense damage to the liver-tissues and bile ducts of sheep.

HABITS AND HABITAT: *Fasciola hepatica* (L. Fasciola, Small bandage + Gr. hepar, Liver) is an ~~etc~~ endoparasite which completes its life

history in two hosts. Adult *F. hepatica* is known as the sheep liver fluke because it occurs in the liver and bile passages of sheep, the primary host. It may also occur in some other vertebrates, like goat, horse, dog, ass, ox, deer, antelope etc. This effect is known as liver rot. *F. hepatica* spends a part of its life history in an intermediate host, a freshwater gastropod, which is either *Limnaea truncatula* or some specific species of planorbis or *Bulinus*.

EXTERNAL MORPHOLOGY:-

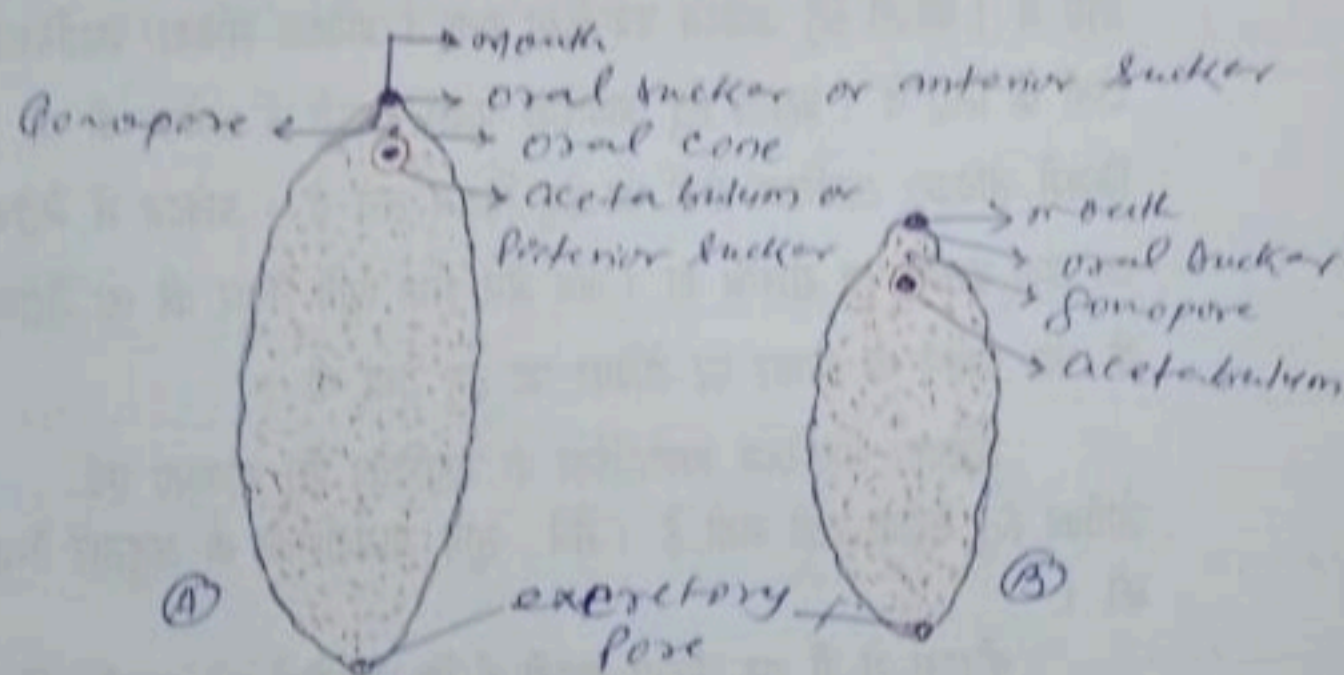


Fig: (A) *Fasciola gigantica*

(B) *Fasciola hepatica*