

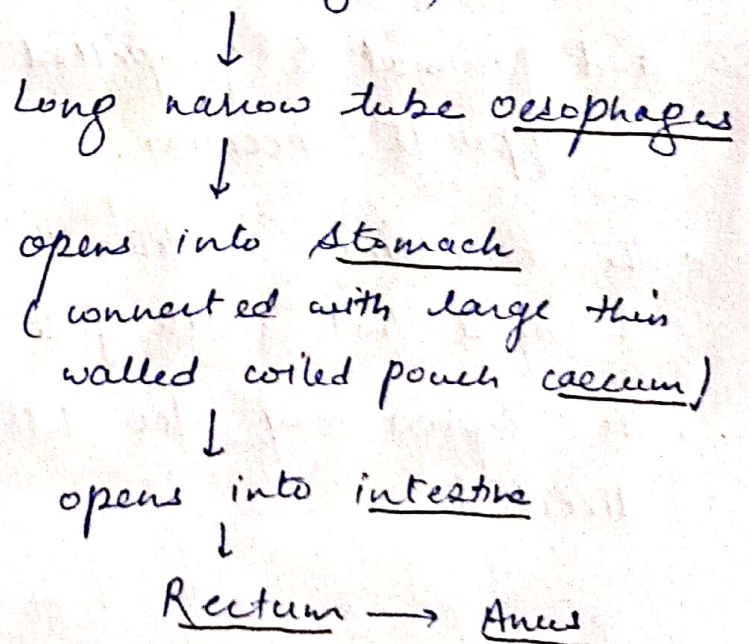
## Locomotion -

- Cuttle fish swims about gently by undulating movements of fins which are also used for directing the course of animals.
- But the most important movements are the swift, drifting movements with the help of the funnel, caused by the rhythmical contractions of mantle.
- When mantle relaxes, mantle cavity is enlarged as water is taken in through collar space across neck.
- When mantle contracts the mantle tightly fits on the neck closing this opening, water in the mantle cavity is shot violently out through the siphon like a jet, and animal is propelled rapidly through the water in opposite direction.
- The resulting backward movement is so sudden & rapid that cuttle-fish seems to vanish instantly.
- The siphon may also determine the course of direction.

- when the siphon is pointed forward the cuttle-fish darts backward, and when it is pointed backward, animal is driven forward.
- Quick reaction is made possible by giant fibres through nerves, over which impulses travel very rapidly.

### Digestive System.

- Mouth lying in the midst of the oral arms, is surrounded by a fleshy circular lip, beset with numerous papillae.
- Just within lip is a pair of sharp, powerful, horny jaws, looking like the inverted beak of a parrot.
- Mouth leads into a → large thick walled, muscular pharynx or buccal cavity (contains tongue)



## Digestive glands -

Following glands are found in the digestive system of cuttle fish -

1. Sublingual glandular tissue - lies on ventral side of tongue and its function is unknown.
2. pair of anterior salivary glands lie within buccal mass opening on either side of radula.
3. pair of posterior salivary glands - lying in front of liver, one on either side of oesophagus, open by a common duct at the tip of tongue in buccal cavity.
  - Salivary glands are misnamed because they are really poison glands & their secretion is used to paralyse the prey.
4. Digestive gland or liver - they are large brown in colour and extends from near posterior salivary glands up to the posterior end of body.
  - It is solid bilobed gland, giving off one duct from each lobe.
  - Two ducts pass through dorsal renal chamber & unite to open into vestibule or chamber where stomach, caecum and intestine meet
5. Two hepatopancreatic ducts bear minute vesicles which constitute pancreas.