

## DIGESTIVE SYSTEM OF SCOLIODON

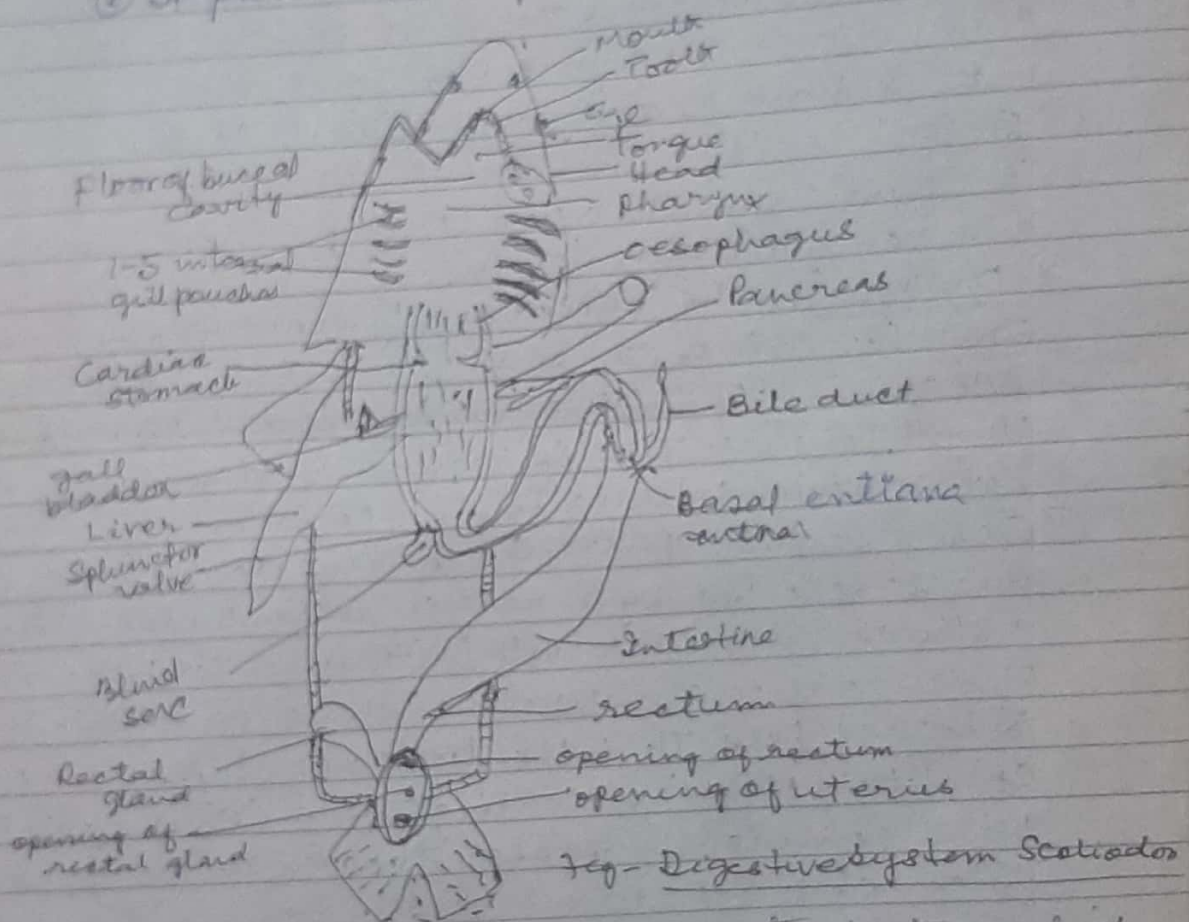
The digestive system of Scoliodon includes the alimentary canal and a digestive glands.

Alimentary Canal:

- The alimentary canal of Scoliodon consists of ① Mouth ② Buccal cavity ③ pharynx ④ oesophagus ⑤ Stomach ⑥ Intestine and ⑦ Rectum.
- ① Mouth: The mouth is crescentric opening located on the ventral side of the head. It is bounded by dorsal and ventral jaws. The jaws are provided with homodont and polyphyodont teeth.
  - ② Buccal cavity: The mouth leads into the buccal cavity. The buccal cavity contain a non-muscular and non-glandular tongue.
  - ③ pharynx: The buccal cavity opens into the pharynx. On either side of the pharynx are situated internal opening of the two spiracles and five pairs of gill pouches. The spiracle is vestigial and is not visible externally in Scoliodon.
  - ④ Oesophagus: pharynx narrow down posteriorly and is followed by a narrow oesophagus. It has a thick muscular wall with an internal lining of mucous membrane which is raised into longitudinal fold. Thus, the lumen of oesophagus is completely closed preventing the entering of water which continuously passes through the pharynx.
  - ⑤ Stomach: The stomach widens to form J-shaped stomach. The stomach has two regions, anterior wide cardiac stomach and posterior narrow pyloric stomach. These two are separated by a blind sac. The distal end of pyloric stomach is slightly dilated to form a sac called bursa entiana.
  - ⑥ Intestine: The stomach leads into the intestine. It is wide tube. The intestine is lined with mucous membrane. The mucous membrane is folded to form a scroll valve. One edge of the scroll valve

attached to the inner wall of the intestine and the other edge is rolled upon itself longitudinally making an anticlockwise spiral valve of about two and half folds. In a cross section it looks like a watch spring. It has two functions:

- ① It increase area of absorption and
- ② It prevent the rapid flow of food through intestine



⑦ Rectum: Intestine opens into the rectum which opens into the cloaca.

### Digestive glands:

① Liver: One liver is formed of two lobes. The lobes are united anteriorly and free posteriorly. The right lobe contains the gall bladder. A bile duct arise from the gall bladder and it opens into the intestine. The liver has three function (i) It secretes bile (ii) It store glycogen