

UROMASTIX DIGESTIVE SYSTEM

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DIGESTIVE SYSTEM :

- The digestive system consists of (A) Alimentary canal and (B) Associated digestive glands

(A) Alimentary canal :

- It is long and convoluted
- The various parts are Mouth, Buccal cavity, Pharynx, oesophagus, stomach, small intestine, large intestine and cloaca.

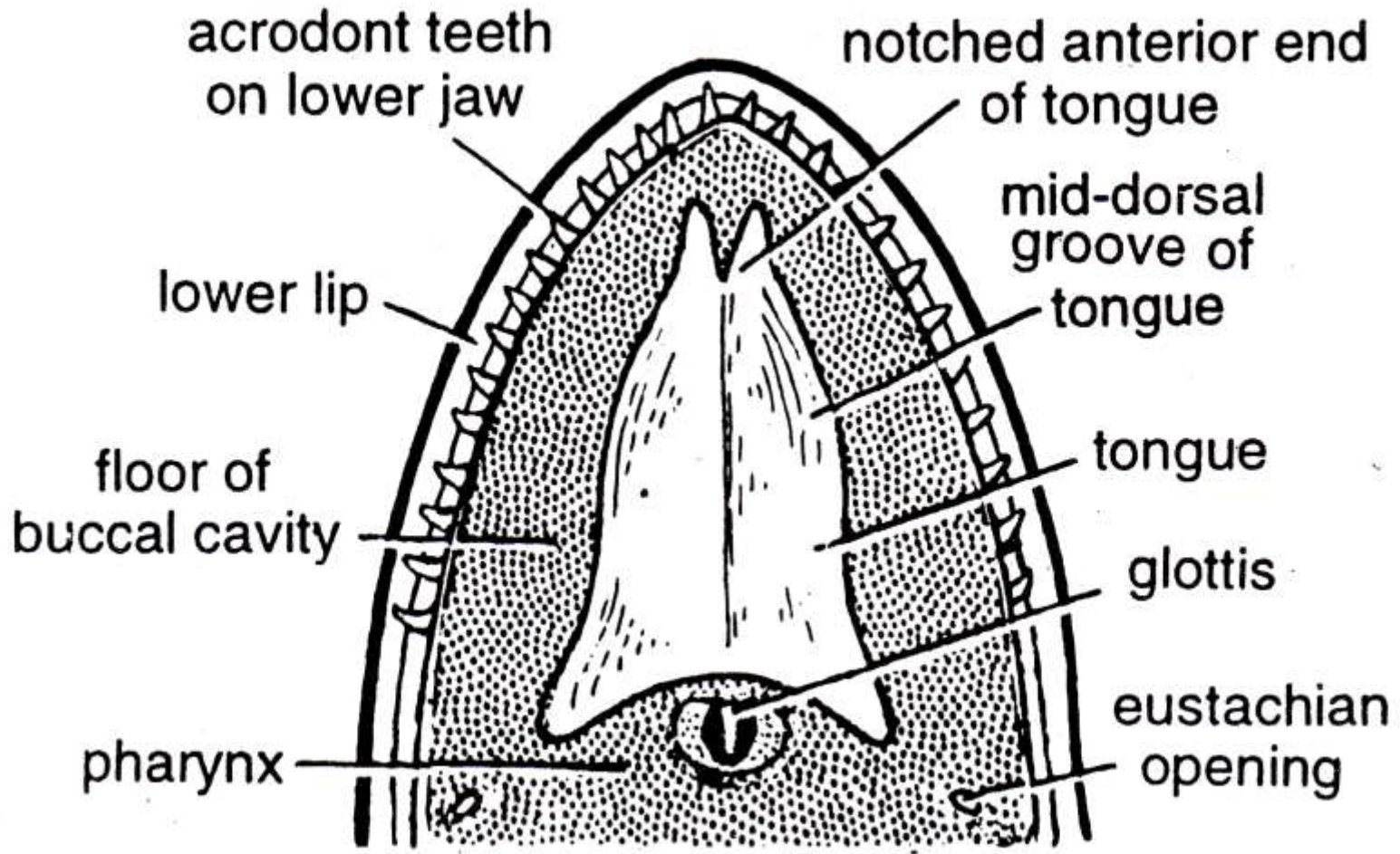
(i) Mouth –

- *Wide, bounded by upper and lower immovable and muscular lips*
- *Both lips are covered with scales*
- *Mouth opens into Buccal cavity*

(ii) Buccal cavity –

- *Buccal cavity is provided with roughly triangular, well developed muscular tongue on its floor.*
- *The tongue is long, bifid and protrusible with taste buds and mucous glands*
- *In the upper jaw the teeth are present on the Premaxillae and maxillae*
- *In the lower jaw the teeth are present on the palatines and pterygoids*
- *The teeth are Acrodont*
- *Internal nares present on the roof of buccal cavity near the anterior end*

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FLOOR OF BUCCAL CAVITY

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(iii) Pharynx –

- *Pharynx lies posterior to the tongue*
- *The floor of the pharynx carries a longitudinal slit, the glottis, which leads to trachea-*
- *On either side, opens a small rounded aperture of eustachian tube*
- *Pharynx lead into oesophagus through gullet*

(iv) Oesophagus –

- *It is long, narrow, cylindrical tube*
- *It is capable of great distension*
- *It leads into wide cylindrical stomach*
- *Numerous longitudinal folds present on the entire inner surface of the oesophagus*

(v) Stomach :

- *It is long, cylindrical and curved sac-like structure with thick muscular wall*
- *Lies on the left side in the body cavity*
- *Stomach is differentiated into two parts –*
 - *(a) anterior part is known as cardiac stomach*
 - *(b) posterior part is known as pyloric stomach*
- *Liver is attached to the stomach by a thin fold called a hepatic omentum*
- *The pyloric valve is in the form of muscular ring which lies on the posterior extremity of pyloric stomach*

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(vi) Small Intestine :

- It is long, narrow and coiled tube
- It comprises an anterior duodenum and posterior ileum
- Duodenum is U – shaped and receives the bile and pancreatic ducts
- Between the two limbs of U, pancreas is present
- Ileum is the longest part of digestive tract attached to the dorsal body wall by the dorsal mesentery
- Inner surface of duodenum and ileum is raised into longitudinal folds of mucosa
- Folds increase the arc of secretion and absorption

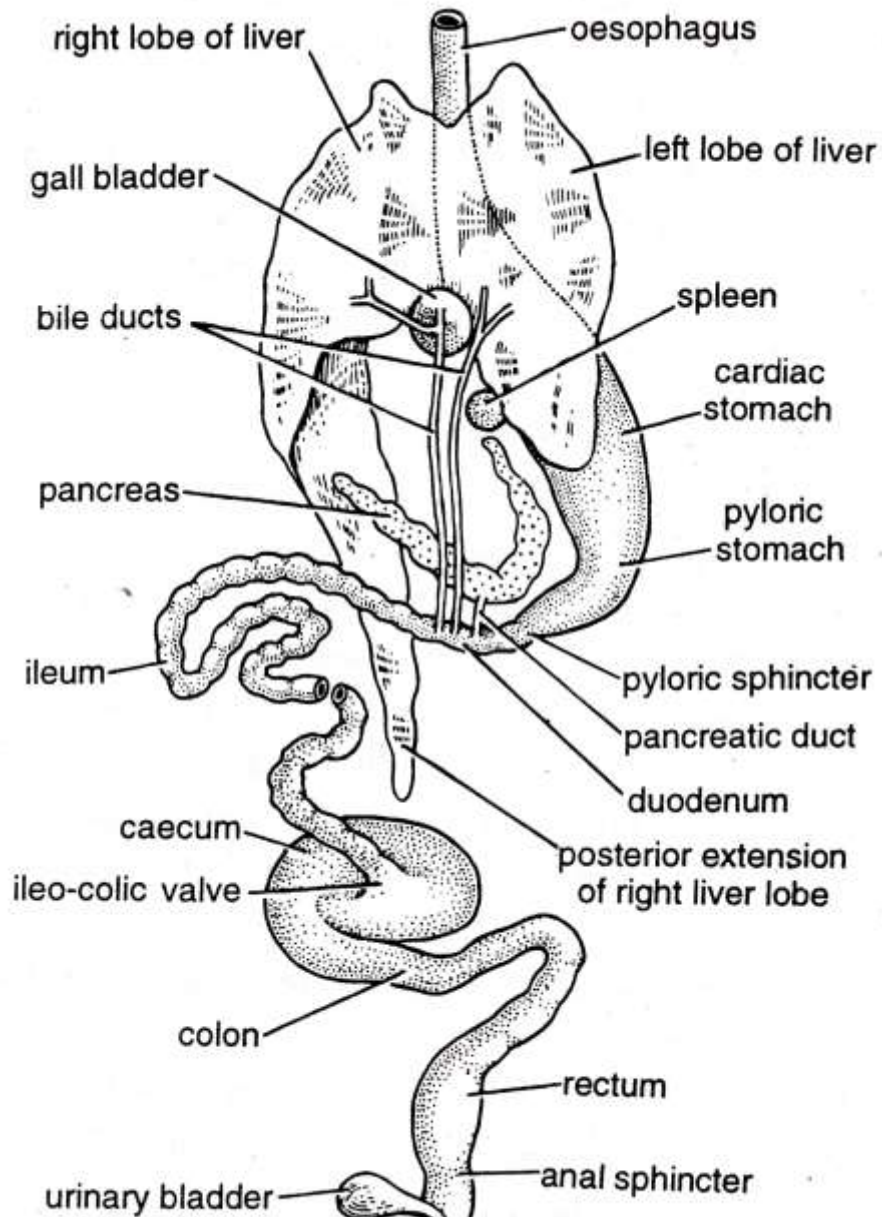
(vii) Large Intestine –

- *The large intestine consists of a proximal colon and a distal rectum*
- *A blind pouch, the caecum, arises from the junction of the ileum and colon*
- *An ilio-colic valve is present internally at the junction of ileum and caecum*
- *The function of colon is the formation of faeces and absorption of water*
- *Rectum is short, tubular and thick walled and serves to store the faeces*
- *The rectum leads behind into the cloaca*

(viii) Cloaca –

- Cloaca is internally divided into three chambers
- The anterior chamber is coprodaeum which receives the rectum
- The middle chamber is urodaeum which receives the ureters and the gonoducts dorsally and the urinary bladder ventrally
- The posterior chamber is proctodaeum opens to the outside by cloacal aperture
- Cloacal aperture is transverse slit present at the junction of trunk and tail on the ventral surface
- Cloaca serves for the reabsorption of water from faeces and urine

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(B) DIGESTIVE GLANDS :

- Associated digestive glands are gastric glands, liver, pancreas and Intestinal glands

1. Gastric Glands -

- Microscopic, simple or branched, the glands secrete gastric juice into the cavity of stomach.

2. Liver -

- It is large , bilobed and dark brownish red gland, situated a little posterior the heart between the lungs
- It is connected with the stomach by a thin membranous fold, the gastrohepatic omentum
- The liver consists of three lobes : right, left and dorsal
- The right lobe is long and narrow and its posterior end reaching up to the right gonad
- The left lobe is short and broad lying ventral to the stomach
- The dorsal lobe is small, found attached to the dorsal side of the left lobe
- The liver secretes bile which is stored into the gall bladder
- The gall bladder is situated at the junction between the left and the right lobes
- A cystic duct arising from the gall bladder and a hepatic duct arising from the right lobe of the liver joint to form first bile duct to open into the duodenum
- A second bile duct originates from the left lobe of the liver and opens into the duodenum independently

3. Pancreas -

- Pancreas is white, elongated and narrow gland situated along the pyloric stomach in the loop between duodenum and the stomach
- Pancreatic duct originates from the posterior end of the pancreas and opens into the duodenum
- The pancreas secretes the pancreatic juice

4. Intestinal glands -

- These glands are found in the mucosa of the small intestine
- The glands are numerous, microscopic and invisible
- Glands secretes intestinal juice into the lumen of small intestine