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## PETROMYZON

### Structure + Affinities

Petromyzon commonly known as lampreys are found all over the world. It is marine as well as fresh water forms. It is ectoparasite of fishes.

#### External feature :-

- (i) Body is elongated, cylindrical and eel-like. P. marinus is about 1 meter long.
- (ii) The body is dark dorsally while on the lateral and ventral side it is silvery and whitish.
- (iii) The skin is slimy and scaleless.
- (iv) The body is divided into three parts - Head, trunk and tail.
- (v) The head is cylindrical and has a buccal funnel, a mouth, a single nares, a pair of eyes and seven pairs of gill slits.
- (vi) Mouth is antero-ventral and surrounded by cup-like funnel.
- (vii) The buccal funnel is cuplike structure situated at the anterior end of the head. It is directed downward. It is function as a sucker and is provided with oral papillae or oral lamellae.
- (viii) The inner surface of buccal funnel is provided with radiating rows of conical, horny teeth. The centre of the buccal

(18) funnel has a circular mouth.  
A tongue <sup>protrude</sup> ~~protrude~~ through the mouth.  
It is also provided with teeth acting as a grasping organ.

(19) The nares is present on the dorsal surface of the head. It leads into olfactory sac. The olfactory sac is organ of smell. Behind eye, laterally are 7 pair of gill aperture

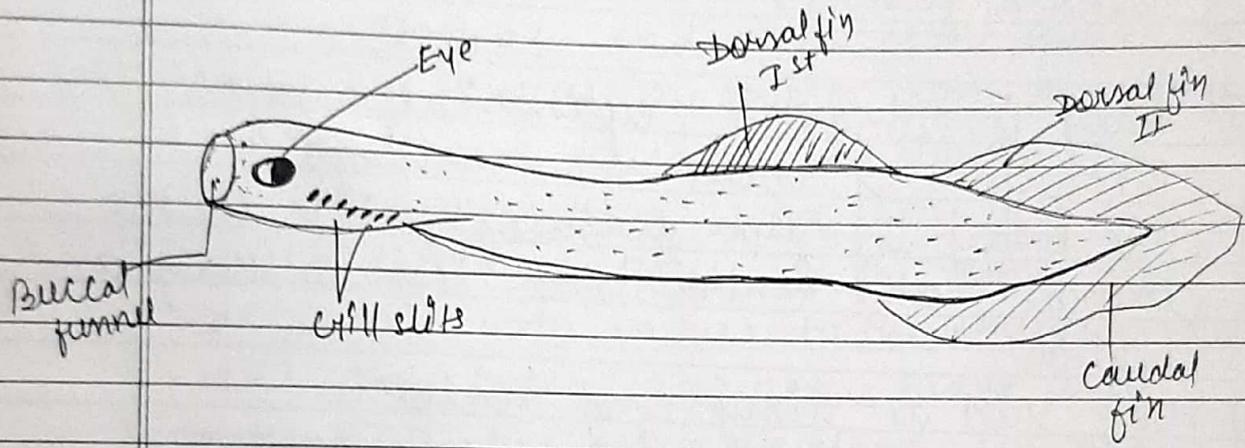


Fig: - External feature of Petromyzon

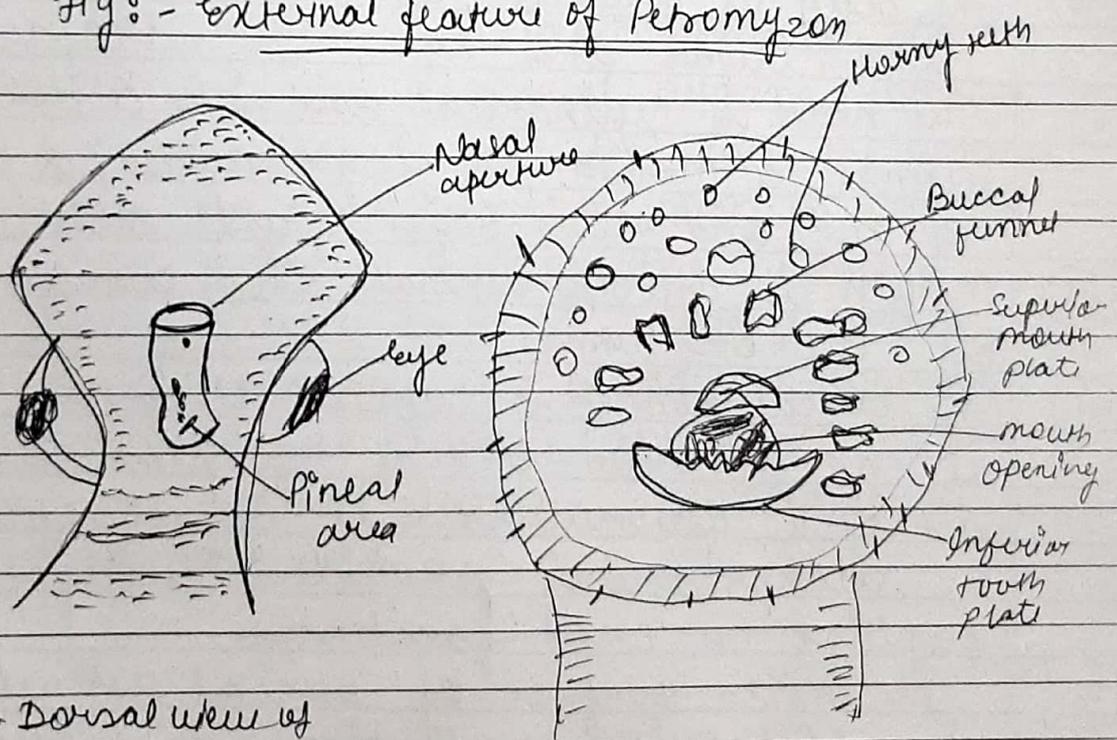


Fig: Dorsal view of Head of Petromyzon

Fig: - Buccal funnel (ventral view) of Petromyzon

### The trunk :-

- (i) The trunk is cylindrical, it has 2 median dorsal fins.
- (ii) The fins are supported by cartilaginous rods called fin rays.
- (iii) At the junction of trunk and tail, the anus and urogenital aperture are present on the ventral side.

### The tail

- (i) The tail is laterally compressed, ~~the anus and urogenital aperture are present on the ventral side~~ It has a caudal or tail fin. The tail fin is also supported by fin-rays.

### Digestive system

- (i) The mouth is absent. The tongue is in the buccal funnel and leads ~~to~~ buccal cavity. The buccal cavity passes behind into two tubes, the dorsal oesophagus and ventral pharynx or respiratory tubes guarded by velum.
- (ii) Stomach is absent. The intestine is straight and provided with spiral valve. The gall bladder and bile duct degenerate in adult.

## Respiratory System

- (i) It consists of six-pairs of gill pouch, each open separately to the exterior by short passage. Internally it ~~is~~ open into ventral pharynx.
- (ii) Respiratory movement takes place by branchial basket.
- (iii) Branchial basket is placed superficially below the skin. It is composed of nine irregular, ventral bars of cartilage. The first is immediate posterior to styloid cartilage. These are connected together by four longitudinal bar, one dorsally, one ventrally and two laterally.

## Endoskeleton

- (i) The skull is primitive and cartilagenous.
- (ii) Its floor is composed of parachordal & trabeculae. Collective constitute basal part.
- (iii) Anterior to basal plate is a large aperture basi-cranial fontanelle.
- (iv) A pair of auditory capsule united with the posterior end of the basal plate.
- (v) Each side of basal plate is sub-ocular oral supporting the eye.

(vi) Addition cartilage such as dorsal plate, lateral cartilage, stylet cartilage are not in skull.

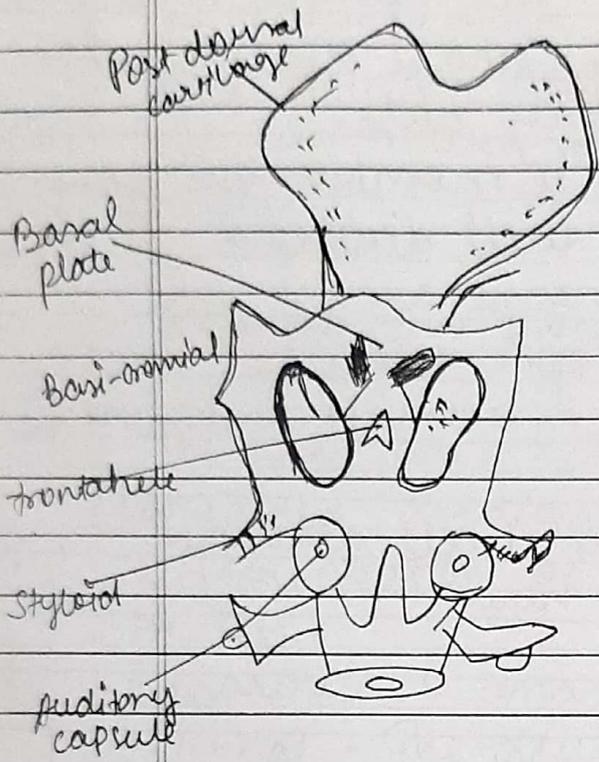


Fig: skull of Peromyscus

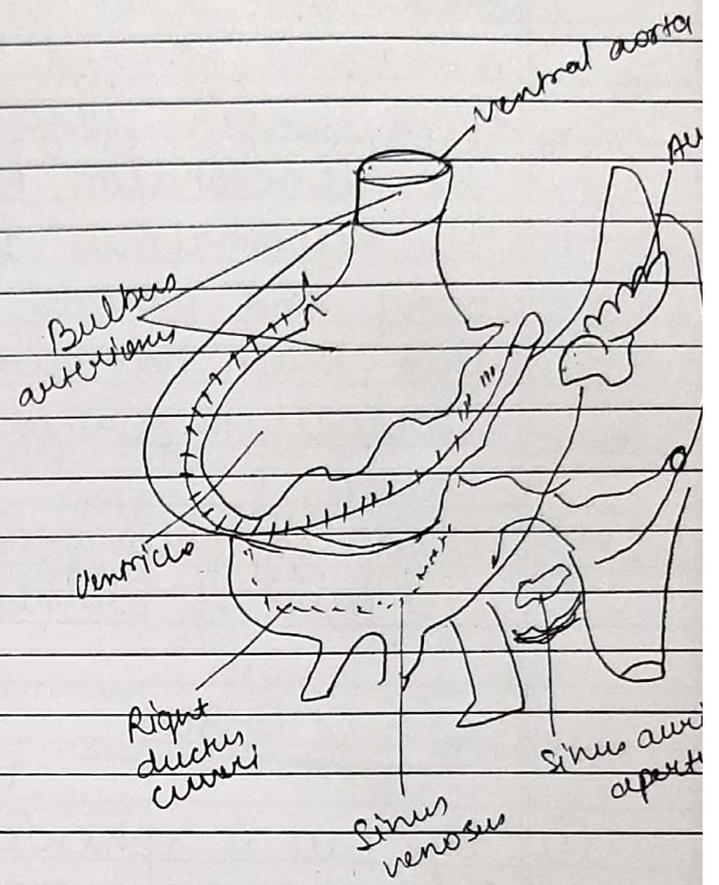


Fig: Heart of Peromyscus

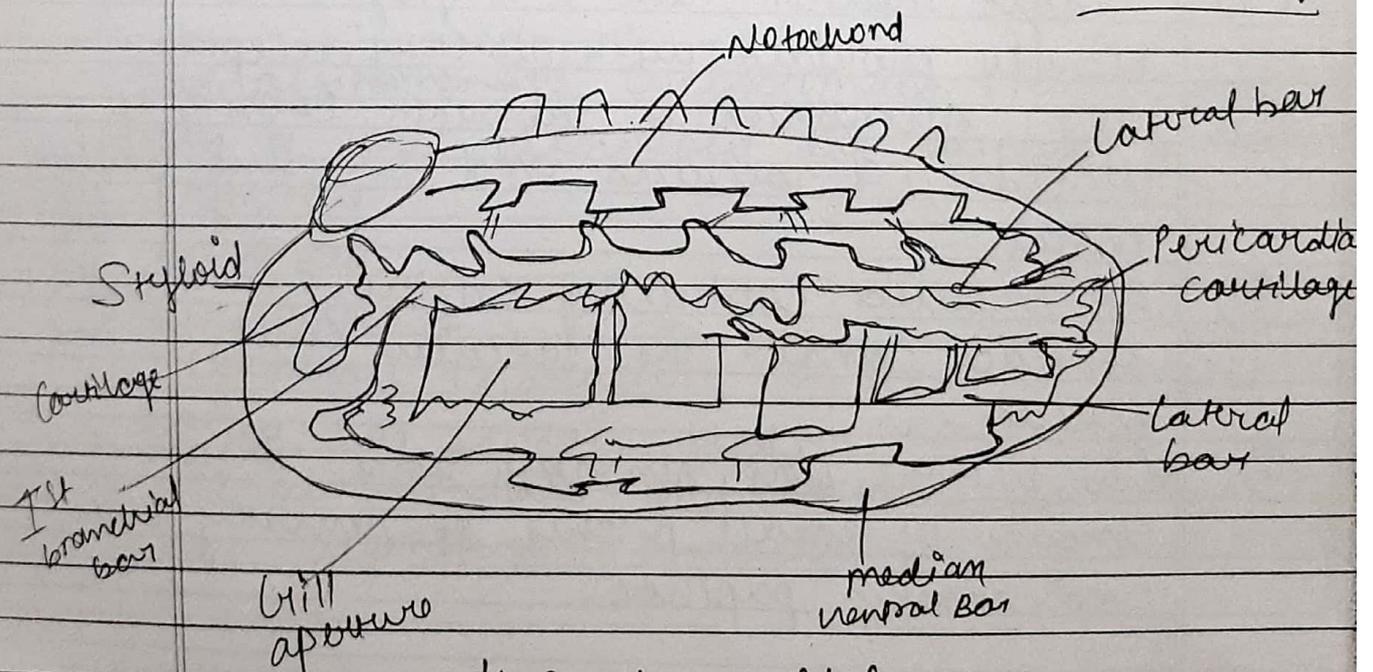


Fig: Head of Peromyscus