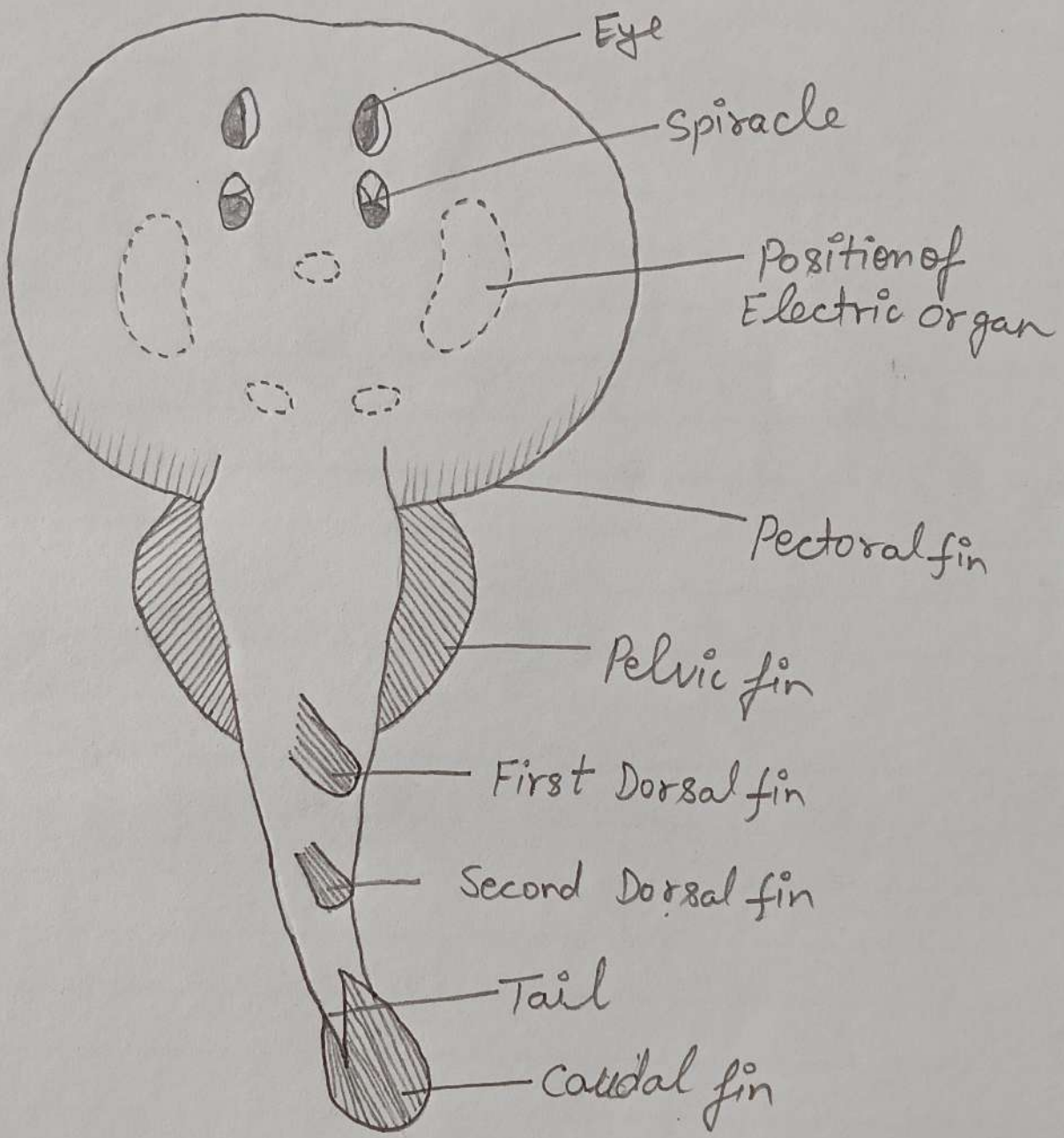
Date: / /

TORPEDO (ELECTRIC RAY)

Comments

- Torpedo has a dorsal tubular nerve cord, vertebral column, definite head and paired appendages.
- Due to its ability to stun its prey and enemies with electrical shock generated by the electrical organs it is called electric ray.
- Tail is thick and short. It has a pair of pelvic fins, two dorsal fins and a caudal fin.
- The semicircular disc is bordered by pectoral fins. On the dorsal surface a pair of eyes and a pair of spiracles can be seen.
- On either side of the disc an electric organ is present beneath the skin.
- It gives birth to young ones.

Phylum – Chordata
Class – Chondrichthyes
order – Hypotremata
Genus – Torpedo



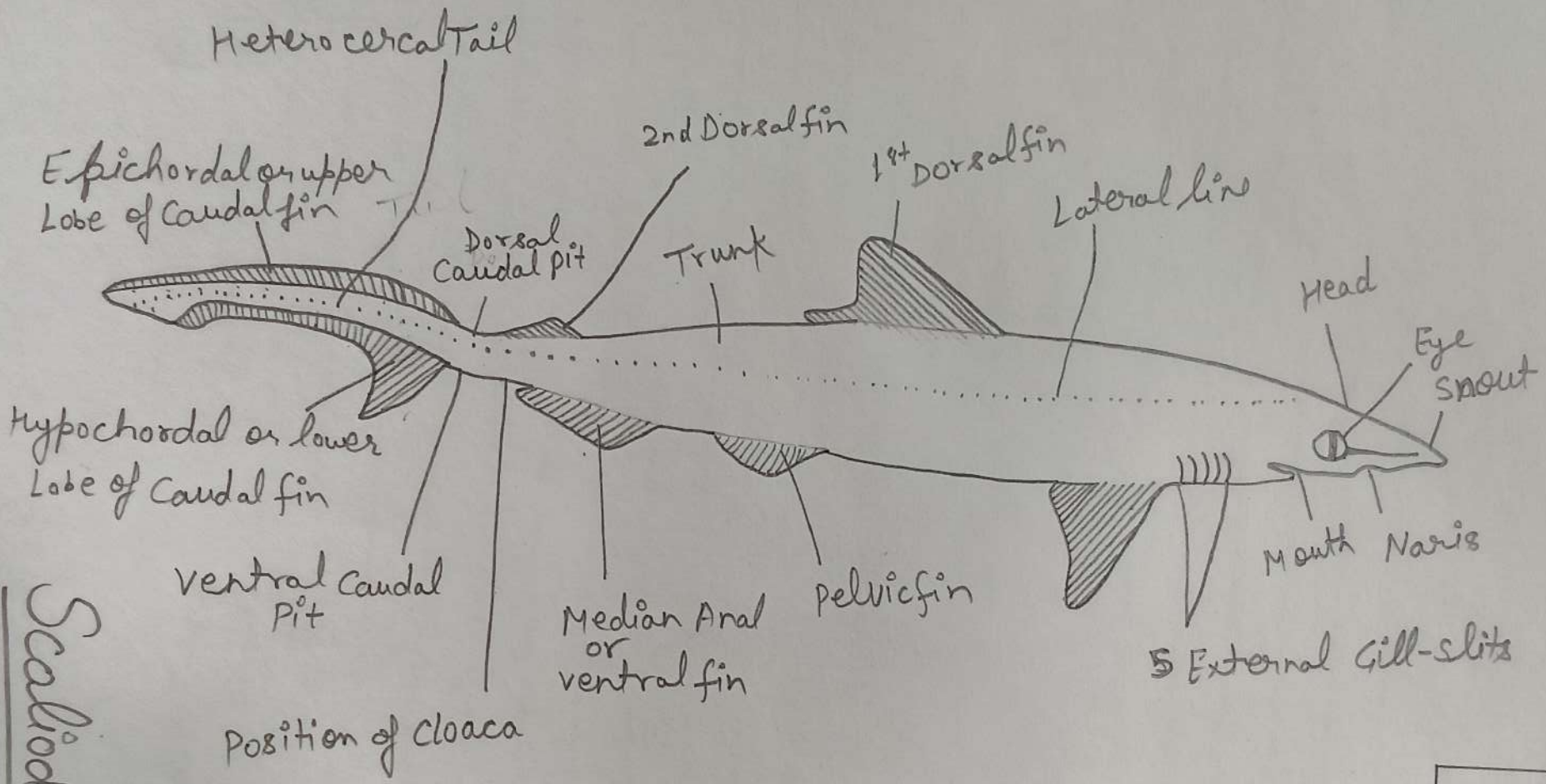
Torpedo

Date: / /

SCOLIODON (DOG FISH)

Comments

- Scoliodon has a dorsal tubular nerve cord, vertebral column, head and paired appendages
- The spindle shaped body is divided into head, trunk and tail. It is covered with placoid scales.
- 5 pairs of gill clefts are placed laterally at the junction of head and trunk region.
- Paired pectoral and pelvic fins lie in the trunk region anteriorly and posteriorly respectively.
- Tail is heterocercal and has a caudal fin.
- Lateral lines run from head to the tip of the tail on either side.
- It is commonly called dog Fish because it has a fine sense of smell.



Scaliodon (Female)

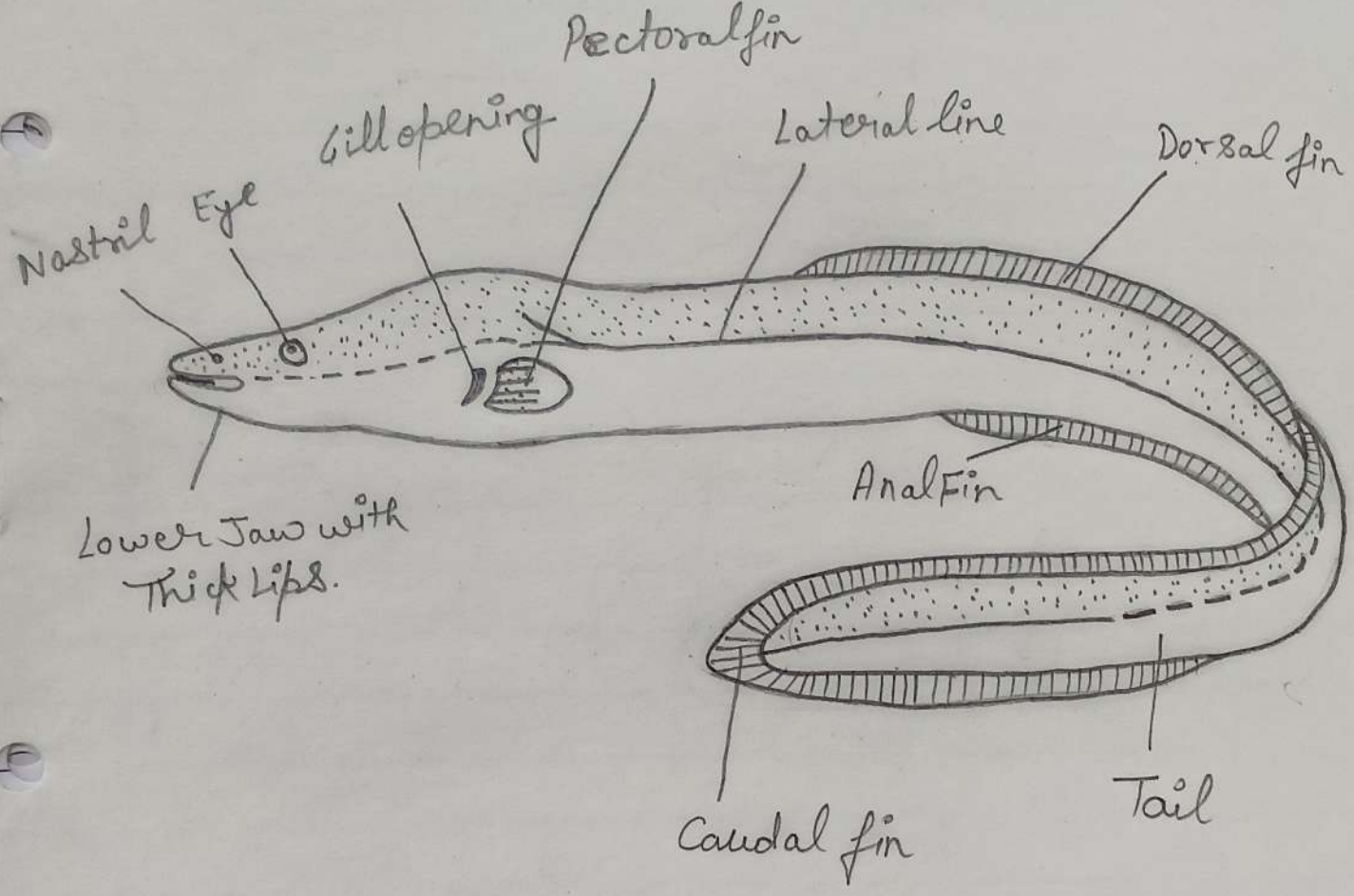
Phylum - Chordata
Class - Chondrichthyes
Order - Pleurotremata / Squaliformes
Genus - Scaliodon

ANGUILLA (EEL)

Comments

- Anguilla has a dorsal tubular nerve chord, vertebral column, definite head and reduced paired appendages.
- Body is slender, elongated, slimy and snake like.
- Body is regionated into head, trunk and tail.
- Dorsal anal and caudal fins are continuous fringing more than half of the body's length.
- Body is covered by rudimentary scales embedded in the skin. Several mucous pores present.
- Development includes transparent, pelagi larvae called leptocephali or glass fishe

Phylum - Chordata
Class - Osteichthyes
Order - Anguilliforme
Genus - Anguilla



Anguilla (Eel)

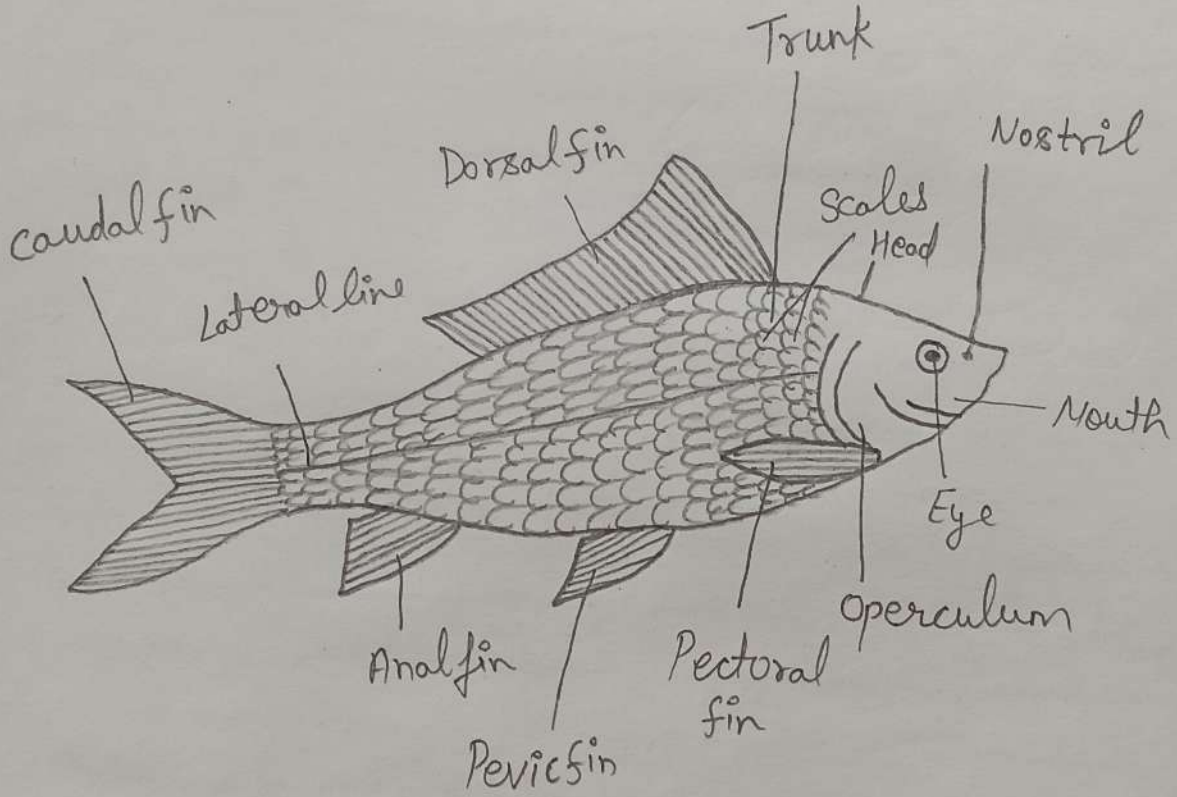
Date: / /

LABEO ROHITA (ROHU)

Comments

- Elongated body with rounded abdomen.
- The body is silvery grey and the caudal and dorsal fins are black.
- Dorsal profile is more convex.
- Jaws covered with a soft, horny covering.
- There is a pair of feeble maxillary barbels.
- Origin of dorsal fin is anterior to the origin of ventral fin.
- Lateral line continuous up to the tail.
- Caudal fin is deeply forked.
- Thick lips surround the mouth and are continuous around the margins of the mouth.

Phylum – Chordata
Class – Osteichthyes
order – Cypriniformes
Genus – Labeo



Labeo rohita (Rohu)

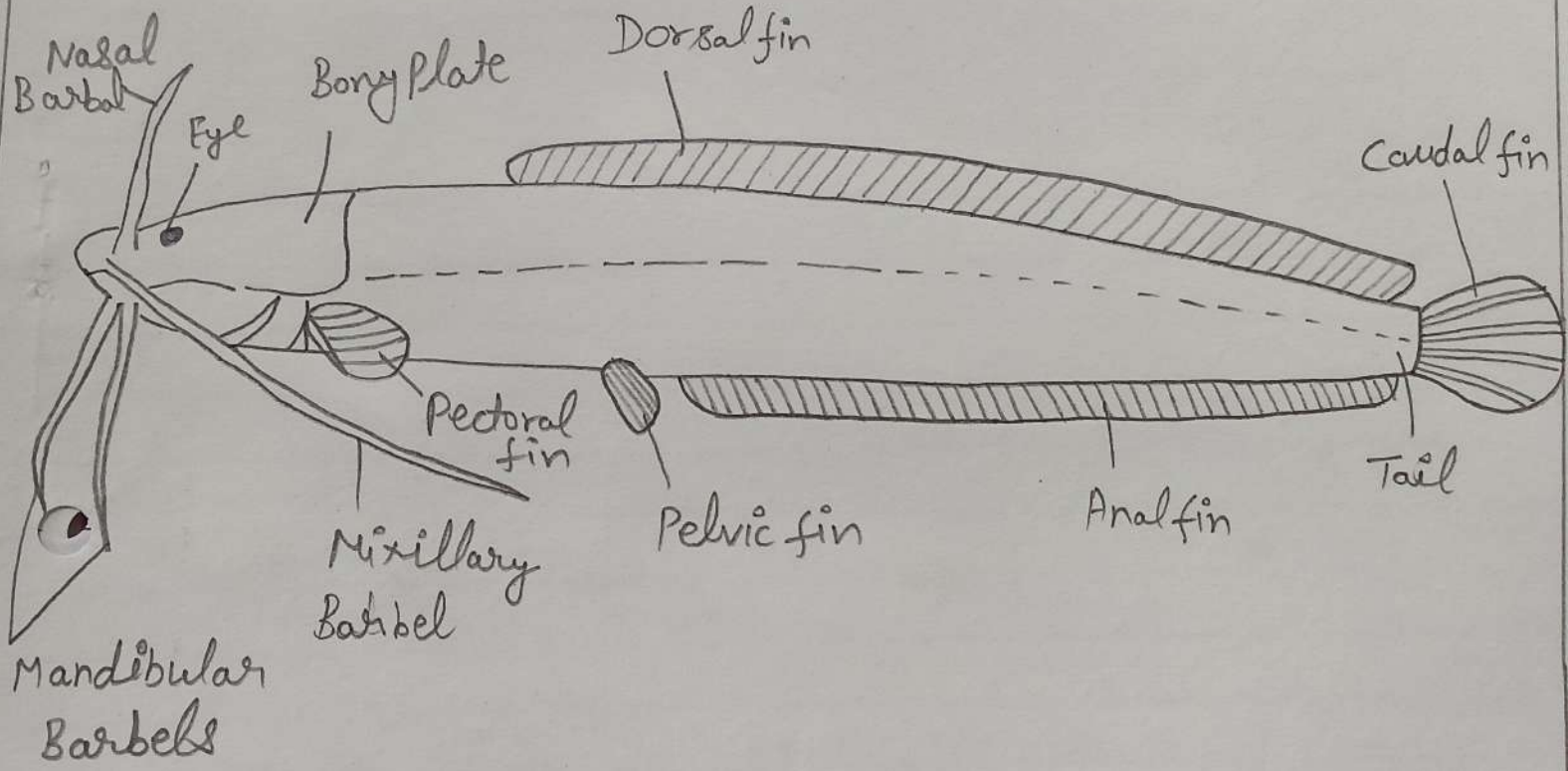
Date: / /

CLARIAS (MAGUR)

Comments

- Brownish body.
- Head is depressed and is covered with a bony plate.
- Head bears two depressions (fontanneles).
- Narrow sub terminal mouth with fleshy papillated lips.
- There are 4 pairs of barbels (1 Maxillary 1 nasal and 2 mandibular).
- Maxillary barbels extend to the base of pelvic fin.
- Anal fin is long and spans the posterior half of the body.
- Homocercal tail has a rounded caudal fin.

Phylum – Chordata
Class – Osteichthyes
Order – Siluriformes
Genus – Clarias



Clarias batrachus

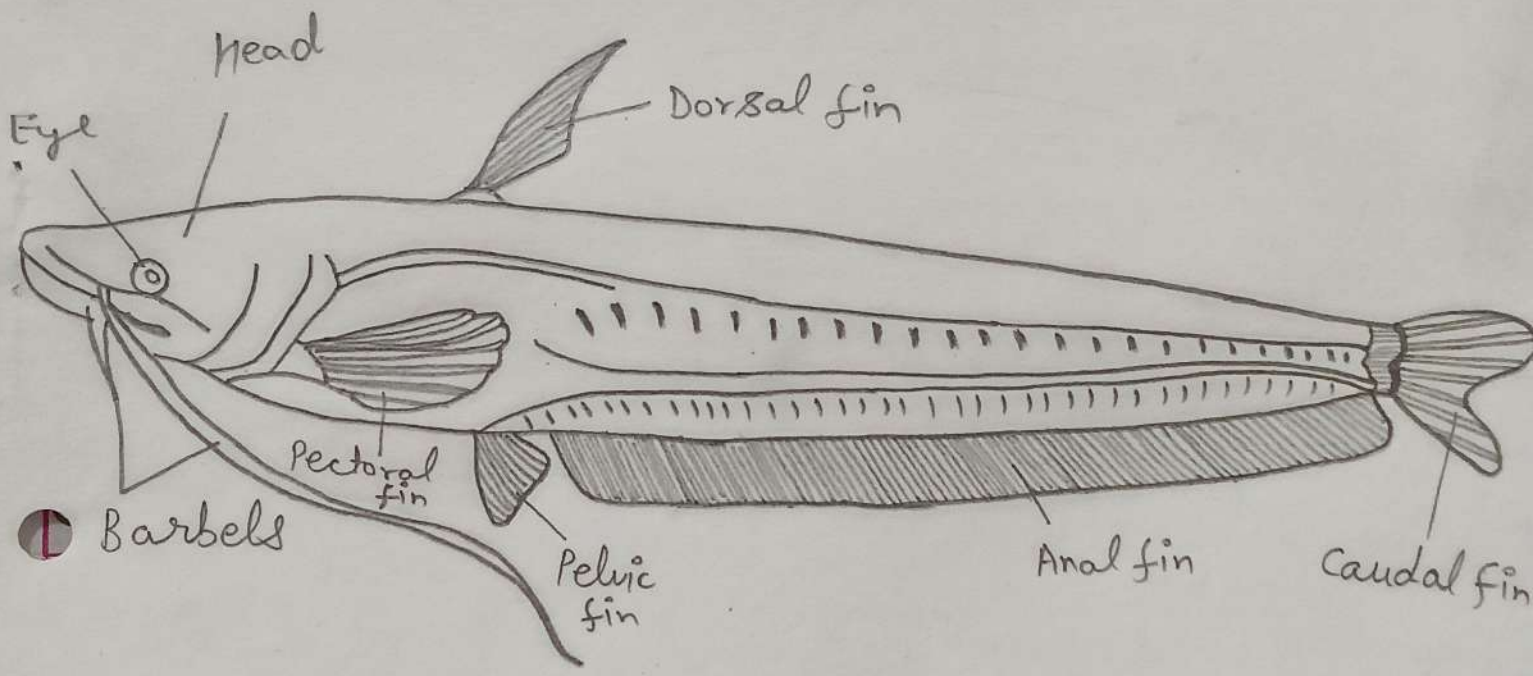
Date: / /

WALLAGO (PARHIN/ BOAL)

Comments

- White to grayish body.
- Lower jaw is longer than the upper jaw.
- Dorsal fin is short and is as long as the pectoral.
- Pectoral spine has fine serrations on the inner margin.
- Anal fin is long and is not confluent with the caudal fin.
- Caudal fin is deeply forked with longer upper lobe.
- There are two pairs of barbels. Maxillary barbels are longer than mandibular barbels and extend behind the origin of anal fin.

Phylum – Chordata
Class – osteichthyes
Order – Siluriformes
Genus – Wallago



Wallago attu

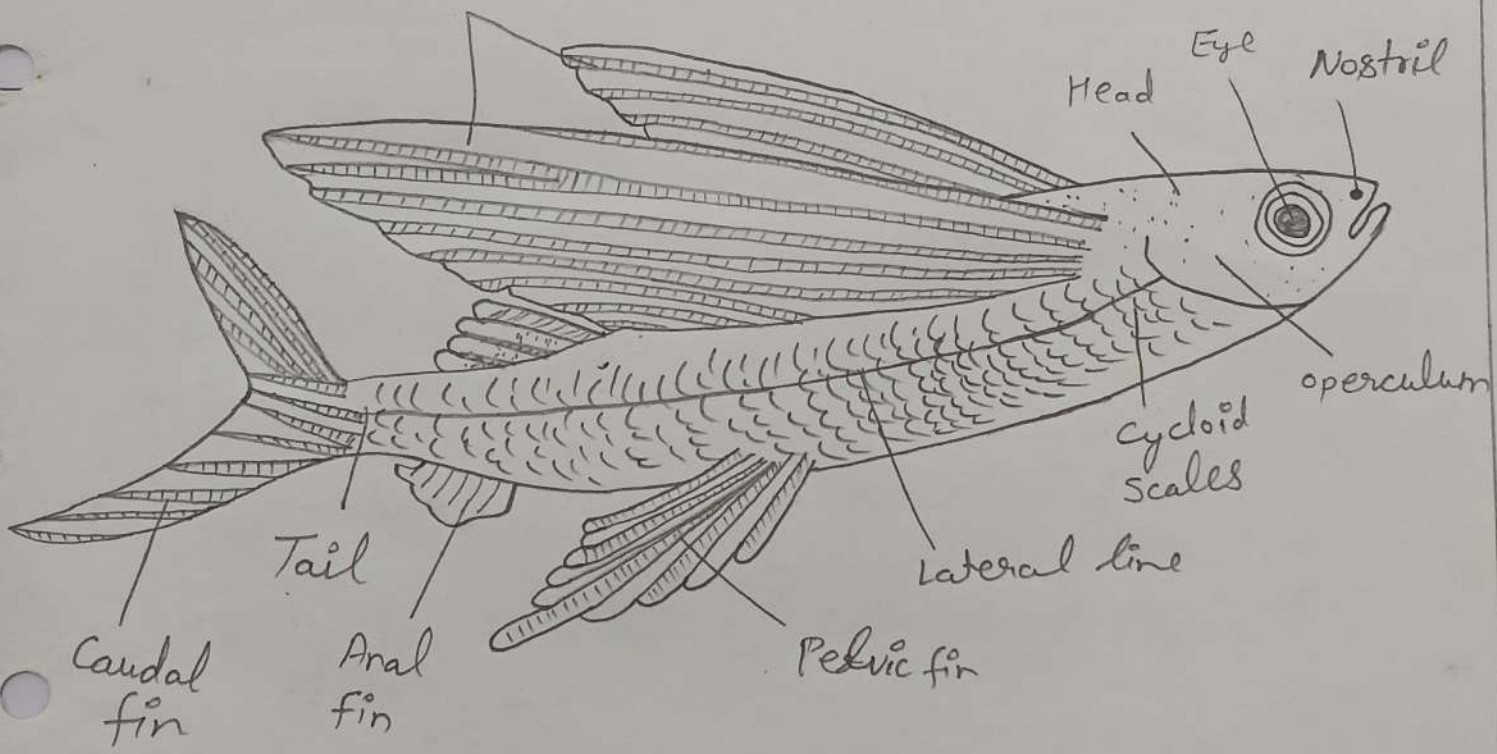
Date: / /

EXOCOETUS (FLYING FISH)

Comments

- Exocoetus has a dorsal tubular nerve cord, vertebral column, definite head and paired appendages.
- Body is elongated, streamlined and divided into head, trunk and tail.
- Dorsal and anal fins are short and lie opposite to each other.
- Operculum covers the branchial chamber.
- Body is covered by overlapping cycloid scales.
- Lateral line is distinct on either side.
- Head has a pair of large eyes, paired of nostrils and a terminal mouth. Mouth is fringed with lips and jaws bear teeth.

Phylum – Chordata
Class – Actinopterygii
Order – Beloniformes
Genus – Exocoetus



Exocoetus (Flying fish)

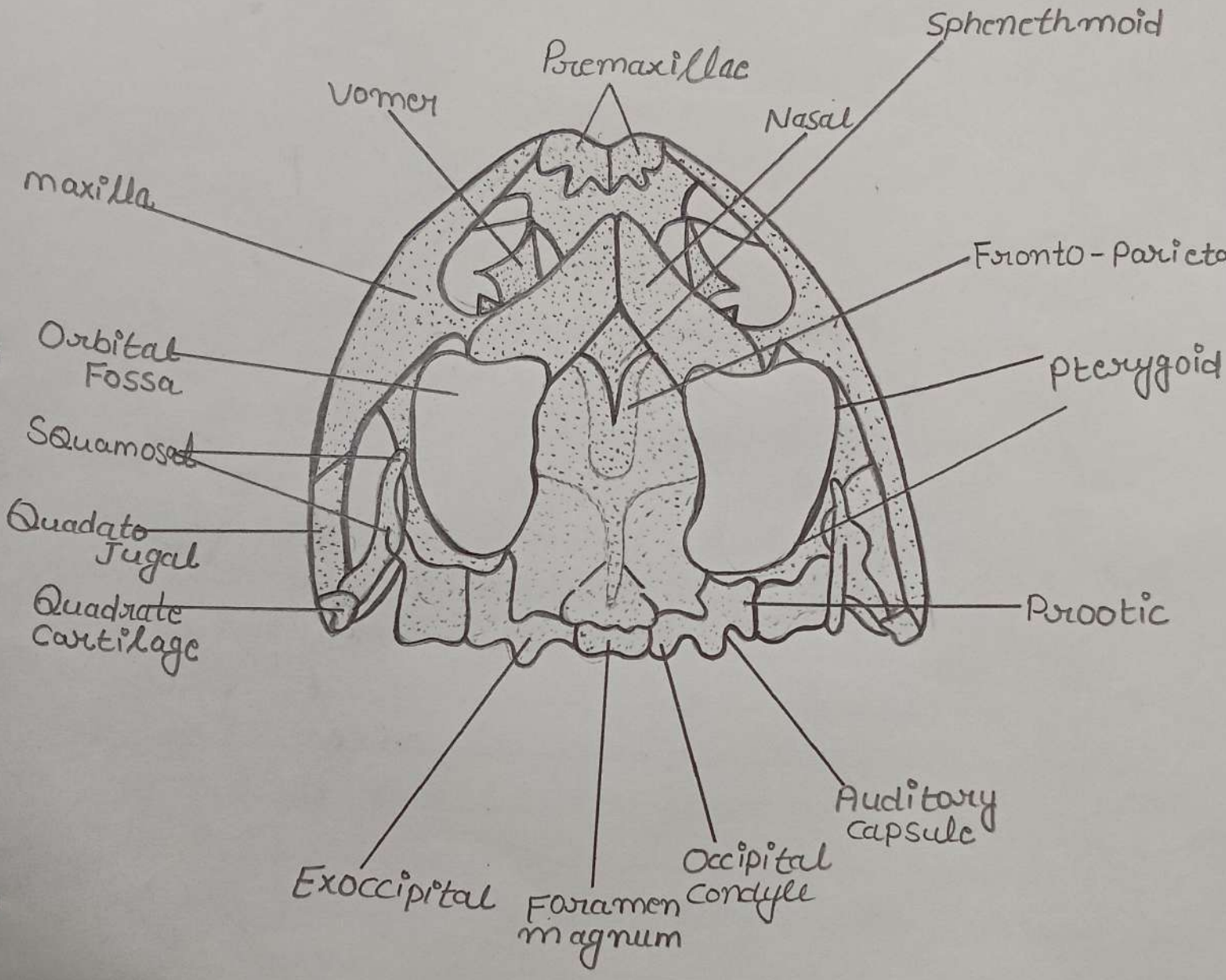
Date / /

SKELETON OF FROG

SKULL

- **Comments:**

- Skull is triangular and dorso-ventrally flattened.
- It is dicondylic i.e two occipital condyles are present.
- Orbits dorsal in position and are without inter-orbital septum.
- Occipital region is greatly reduced and the cranium is small and narrow.
- Skull is platybasic ie cranium extends beyond orbit.
- The fronto-parietal is present on the roof of the cranium.
- The nasals are large triangular bones covering the olfactory capsule.

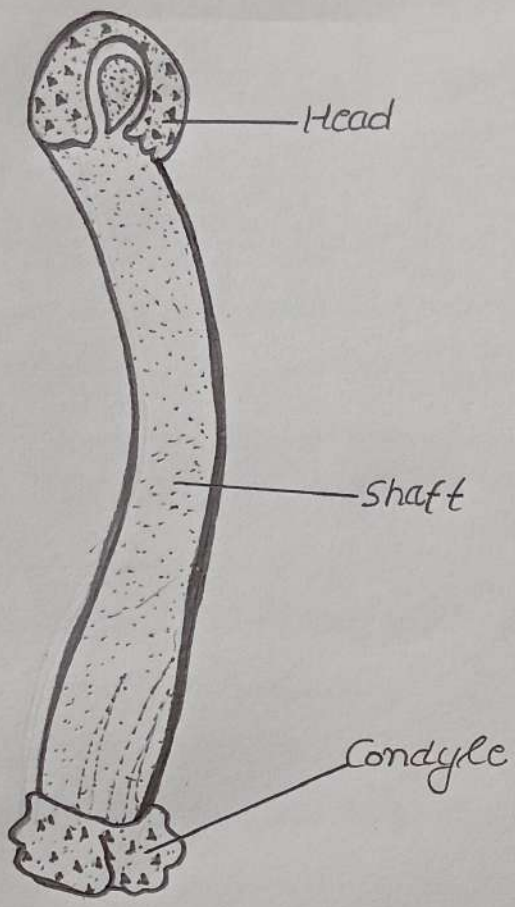

Sphenethmoid
Premaxillae
Vomer
Nasal
maxilla
Fronto-Parietal
Orbital Fossa
pterygoid
Squamosal
Quadato Jugal
Quadrate Cartilage
Prootic
Auditory capsule
Occipital condyle
Exoccipital
Foramen magnum

Skull

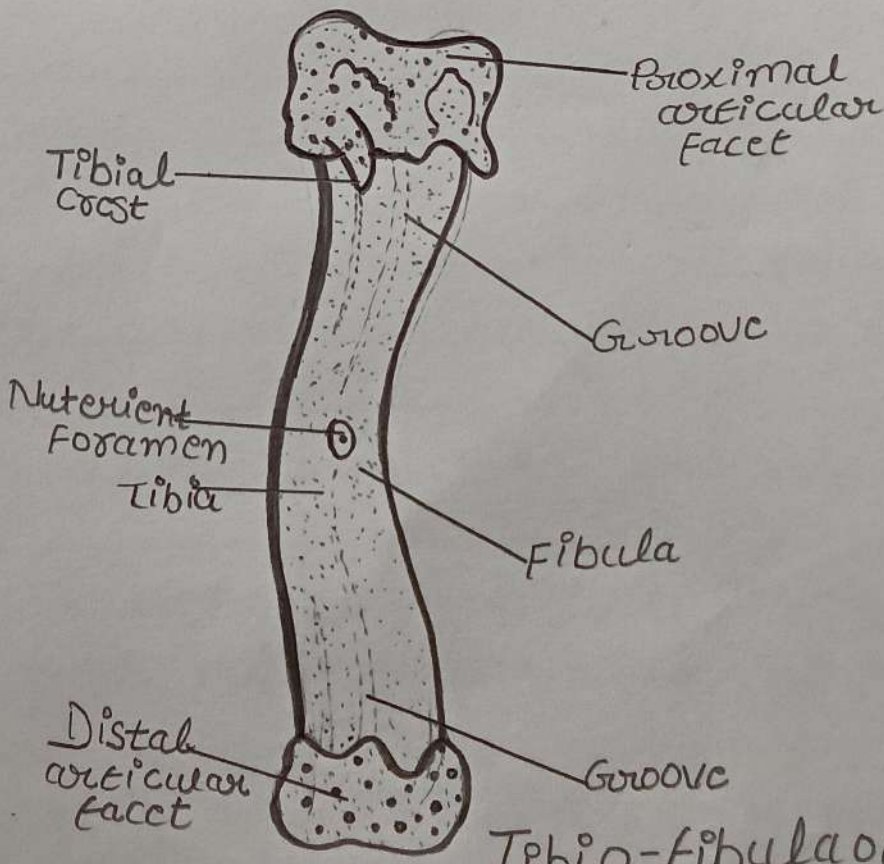
Date / /

HIND LIMB BONES (FEMUR)

- **Comments:**
- It is the bone of thigh region of hind limb.
- It is a long, cylindrical and 'S' shaped bone.
- It is divided into three parts - proximal swollen head, shaft and distal condyle.
- The head and condyle are capped with cartilage.
- **Tibio - fibula:**
- It is formed by the fusion of two bones - tibia and fibula of which tibia is the inner and fibula is the outer bone.
- Near the proximal end tibial crest is present.
- Proximal end articulates with femur and the distal end articulated with astragalus - calcaneum.
- Near the middle of the shaft lies a nutrient foramen for arteries and veins.



Femur of frog



Tibio-fibula of frog

Date / /

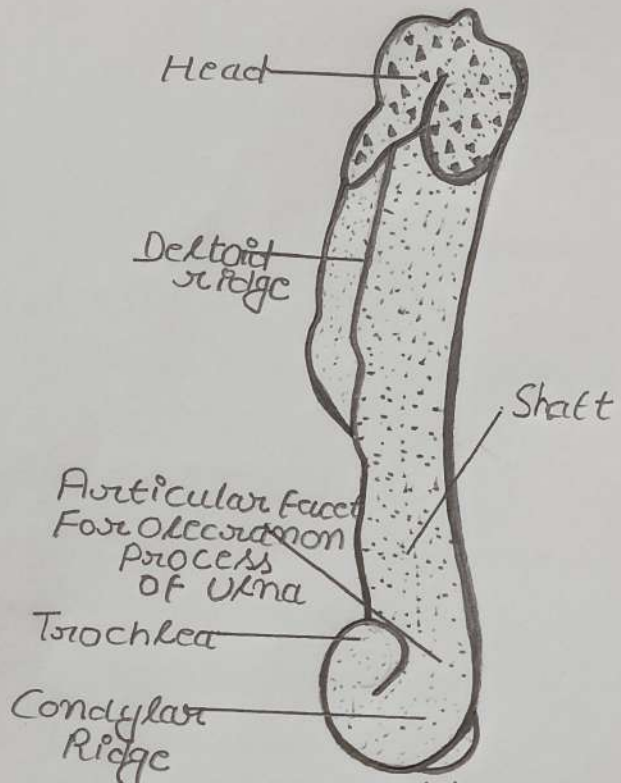
LIMB BONES (HUMERUS)

- **Comments:**

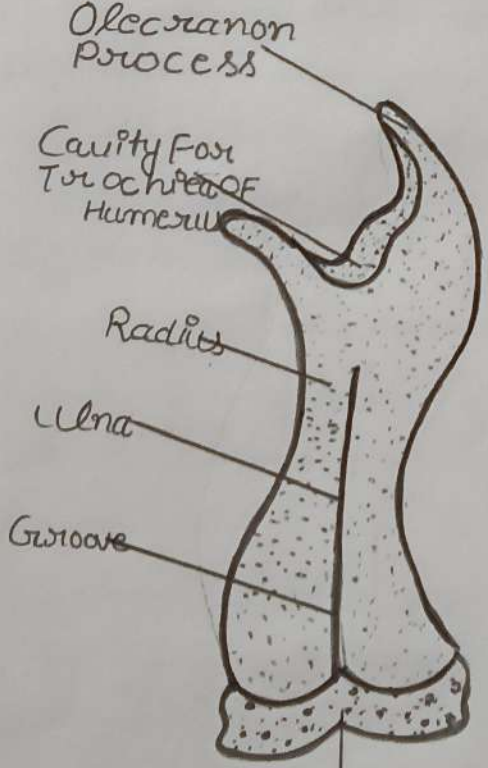
- It is the bone of upper arm of fore limb.
- It is long stout, cylindrical and slightly curv bone.
- It is devided into proximal swollen head, a shaft and distal ball like trochlea.
- The head is covered with cartilage and it fits shaft and distal ball like trochlea.

- **Radio-ulna:**

- It is a compound bone of fore arm of fore limb an is formed by the fusion of a long ulna and a small radius bone.
- Its poximal end has a concavity called sigmod cavity for articulation with trochlea of humerus
- The ulna project-beyond the anterior tip of radius in to an olecranon proces.



Humerus of Frog.



Radial - Ulna of frog

Date / /

GIRDLES (PECTORAL GIRDLE)

- Comments:

- It is present in the thoracic region to which fore limbs are attached.

- The scapular part has plate like supra-scapula and scapula.

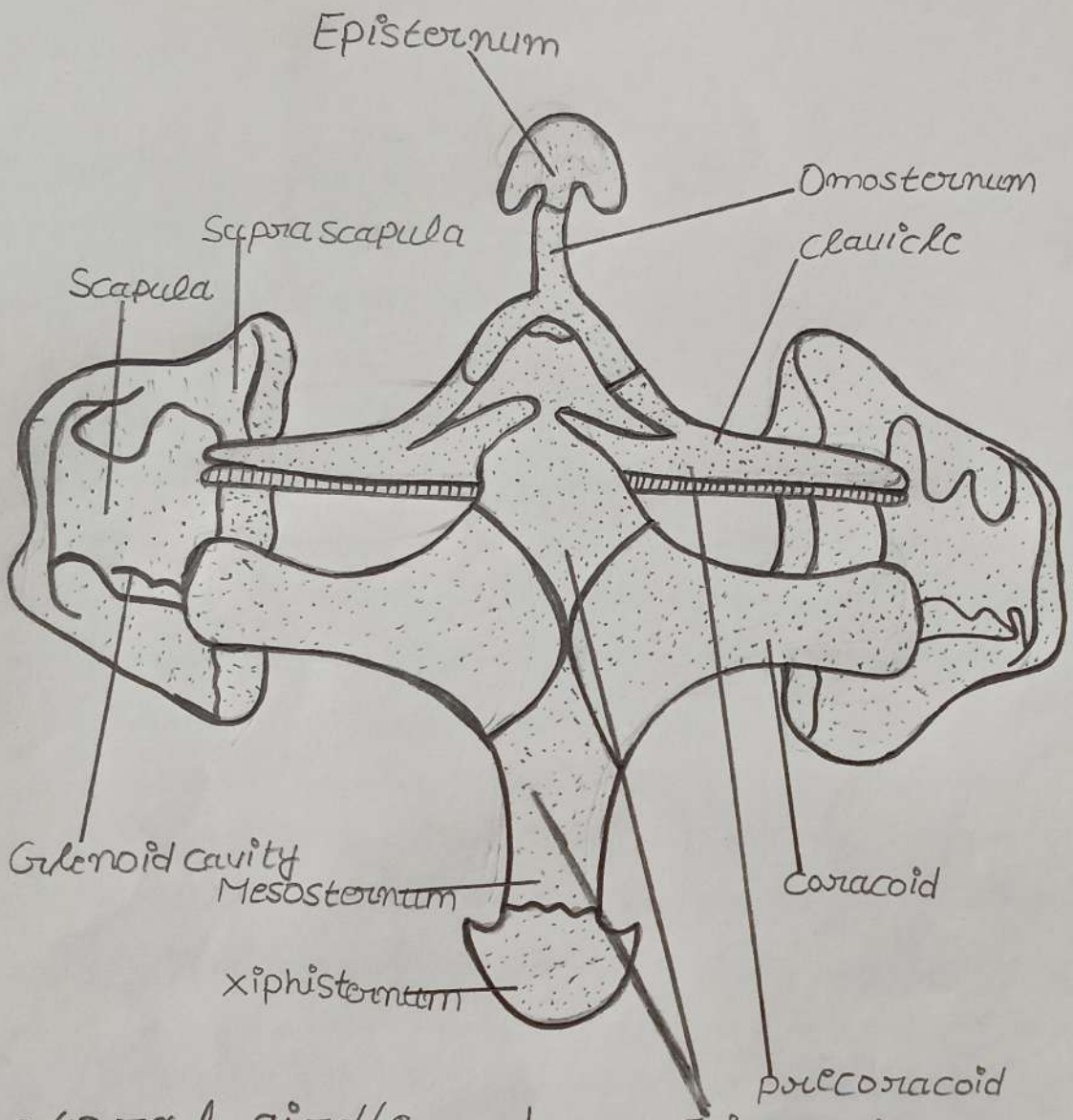
- Coracoid part is made up of rod like clavicle and dumb bell shaped coracoid and two cartilages procoracoid and epicoracoid.

PELVIC GIRDLE

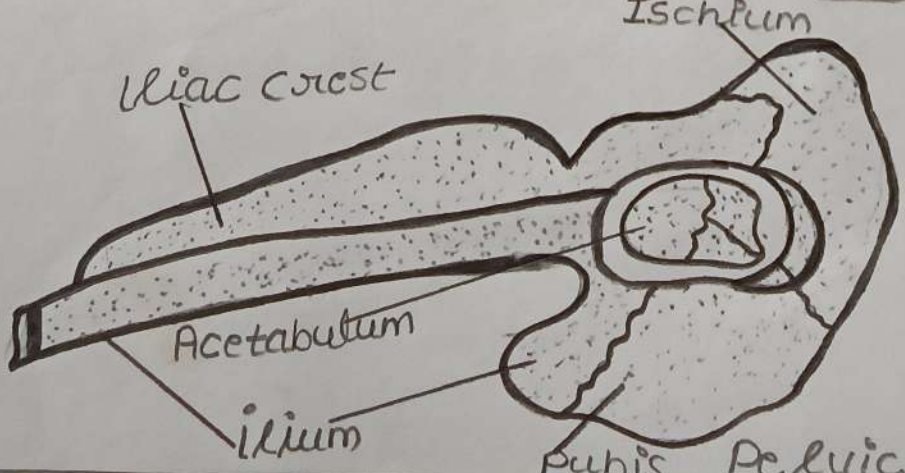
- It is also called hip girdle and lies in the posterior region of the trunk.

- It is V-shaped and composed of two similar halves each of which is known as os-innominatum.

- Each half is made up of 3 bones - Ilium pubis and Ischium. Ilium is the largest and pubis is the smallest bone.



Pectoral girdle and Sternum (Ventral view) of Frog



Pelvic girdle (Lateral view) OF Frog