



Comparative osteology:

Lets Learn about bones

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Diagram credits: Ms. Shalini Panwar

(B.Sc. (H) Zoology 2018-21)



*For better Results:
Attend the Class... 😊*

Divisions of the endoskeleton

Broadly, the endoskeleton is divided into two parts:

1. AXIAL SKELETON

2. APPENDICULAR SKELETON

Axial Skeleton:

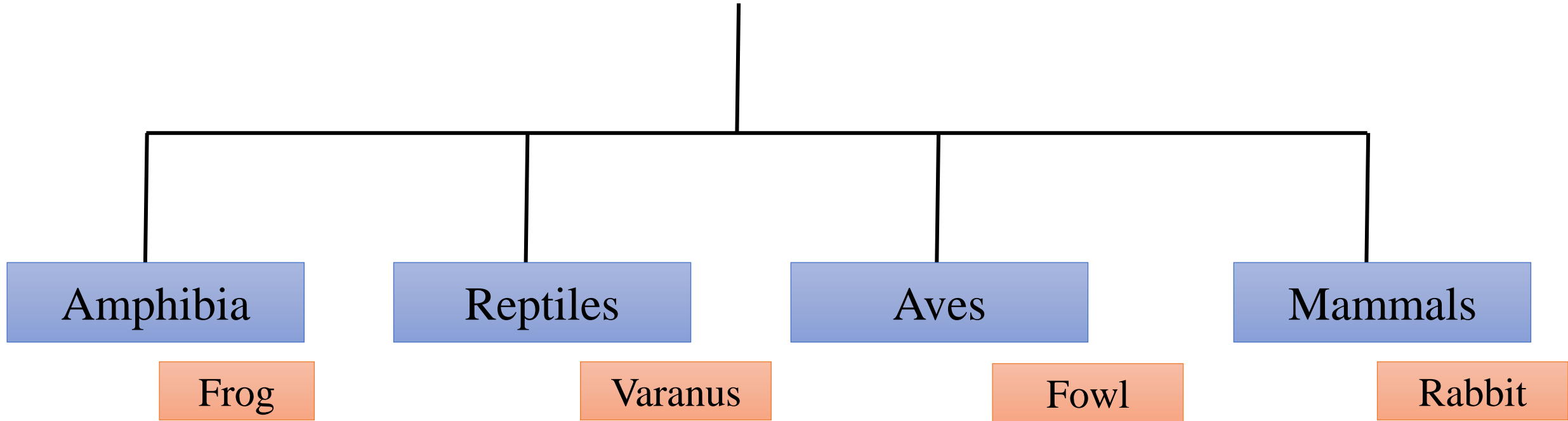
- Skull
- Vertebral column
- Ribs
- Sternum

Appendicular Skeleton

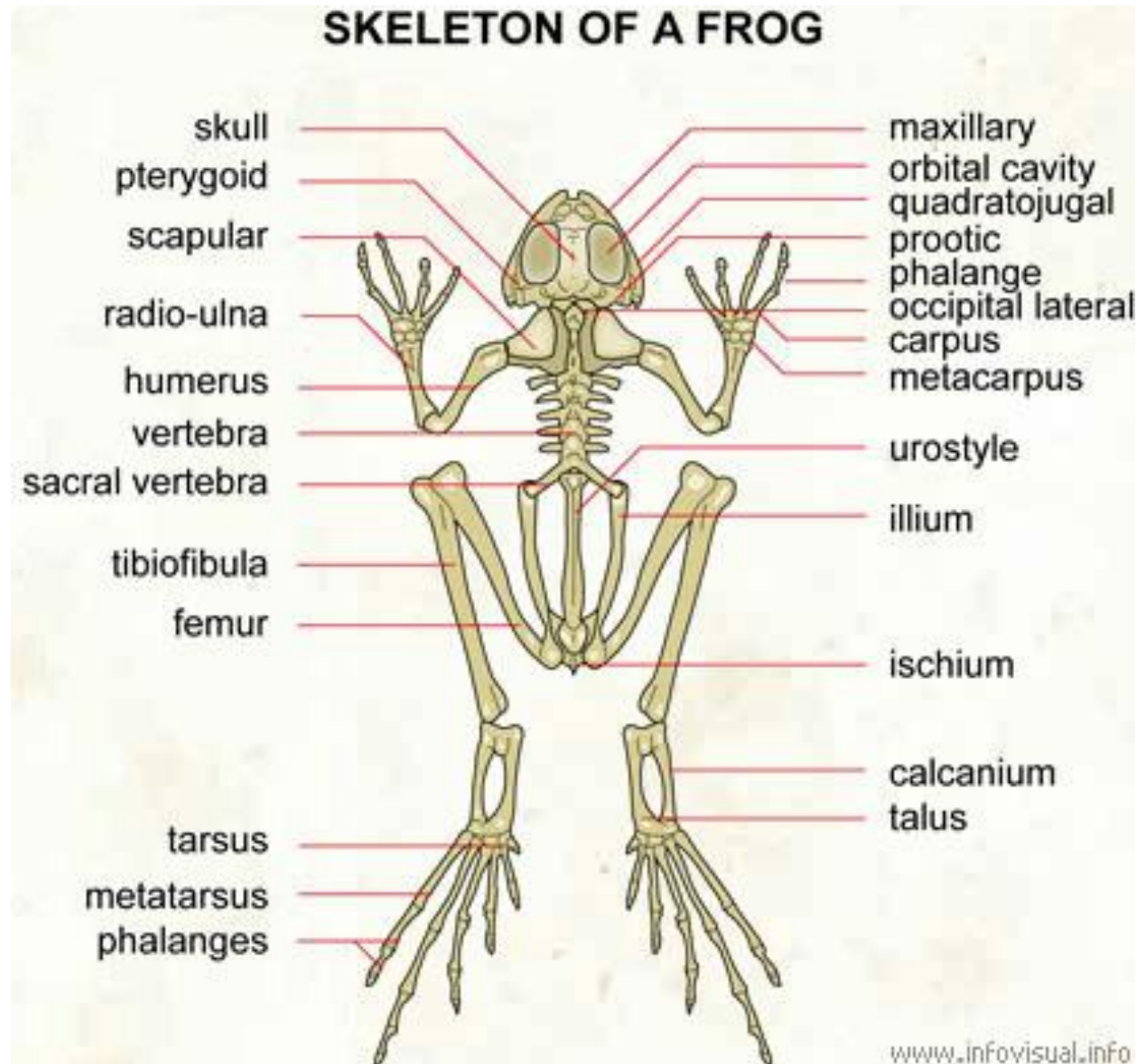
Girdles

Limb Bones

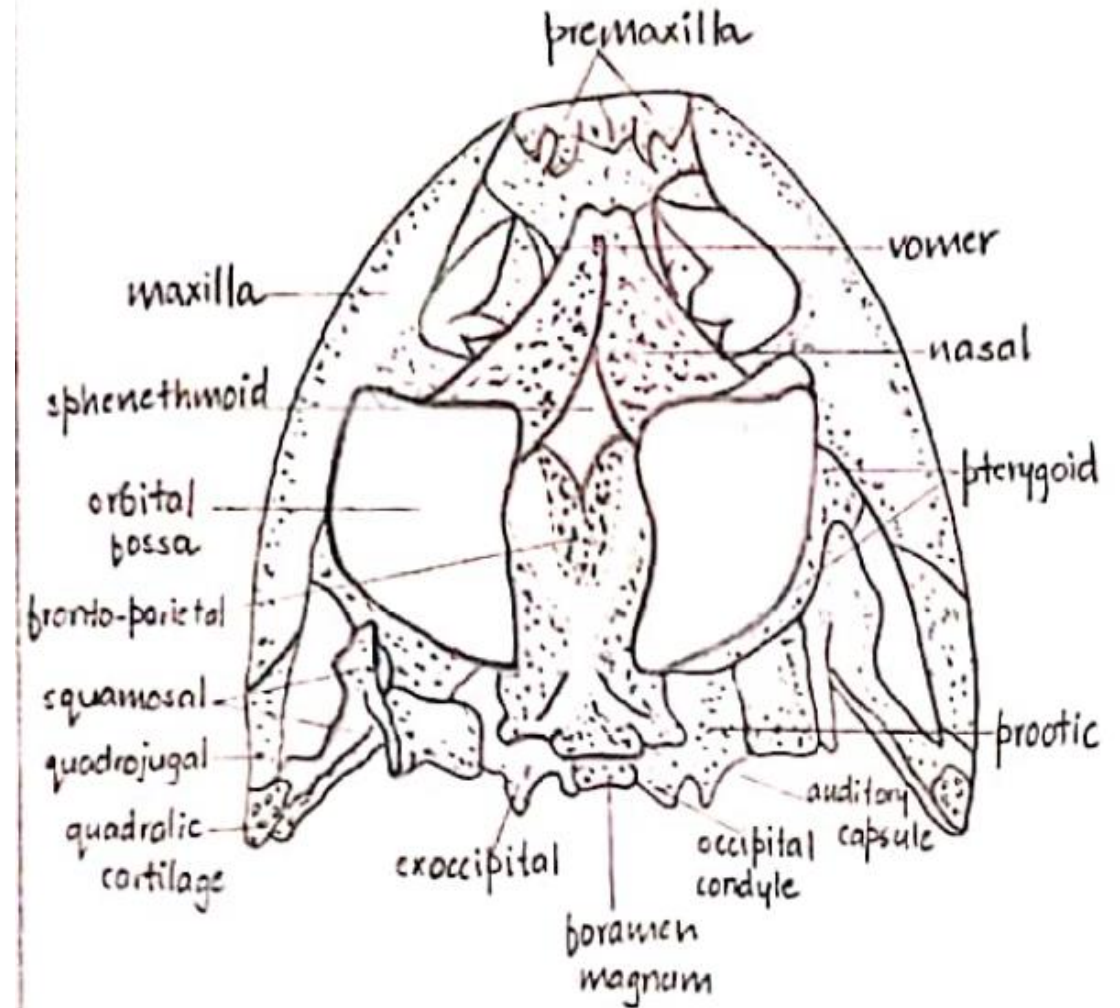
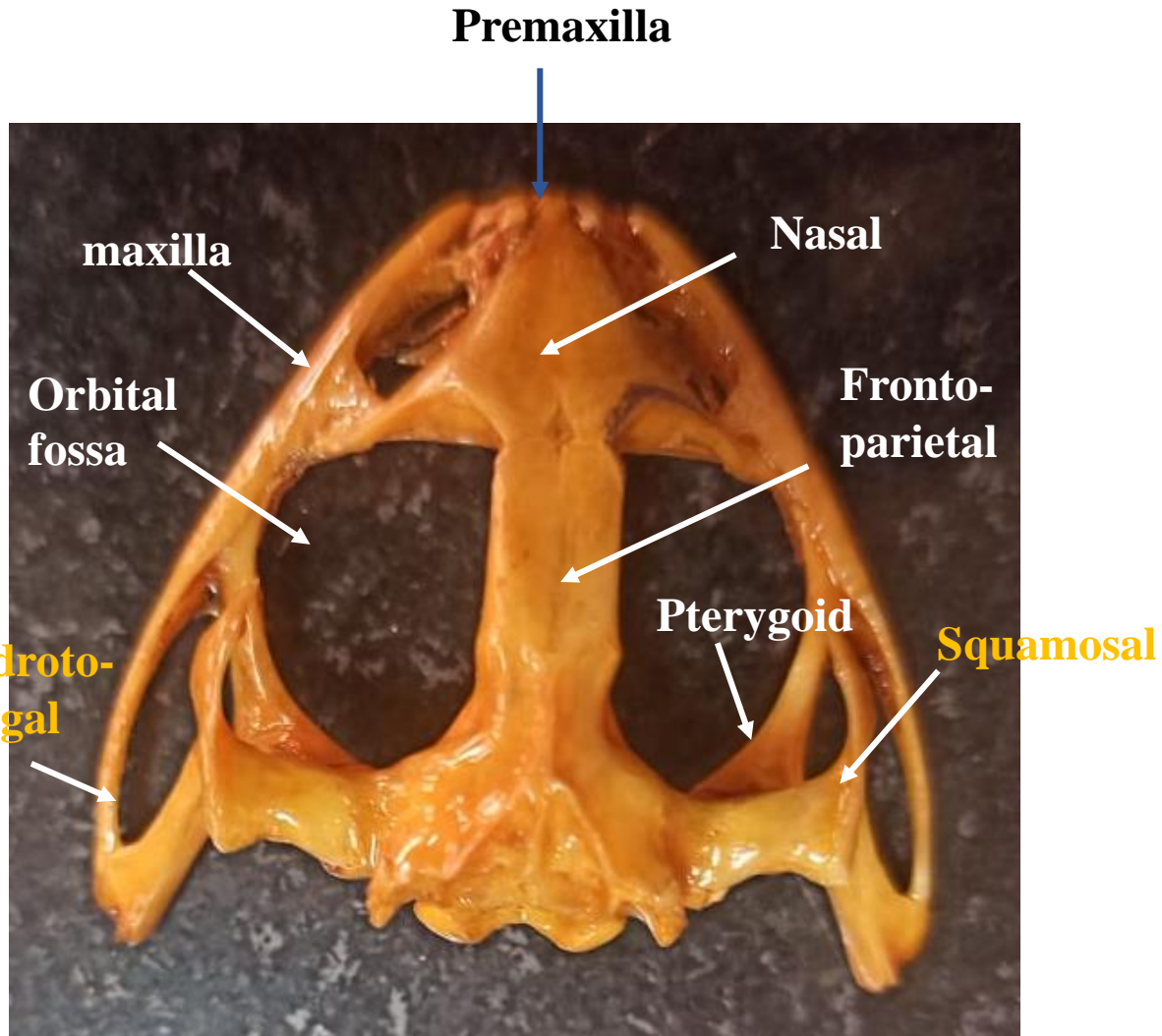
Comparative Osteology of Vertebrates



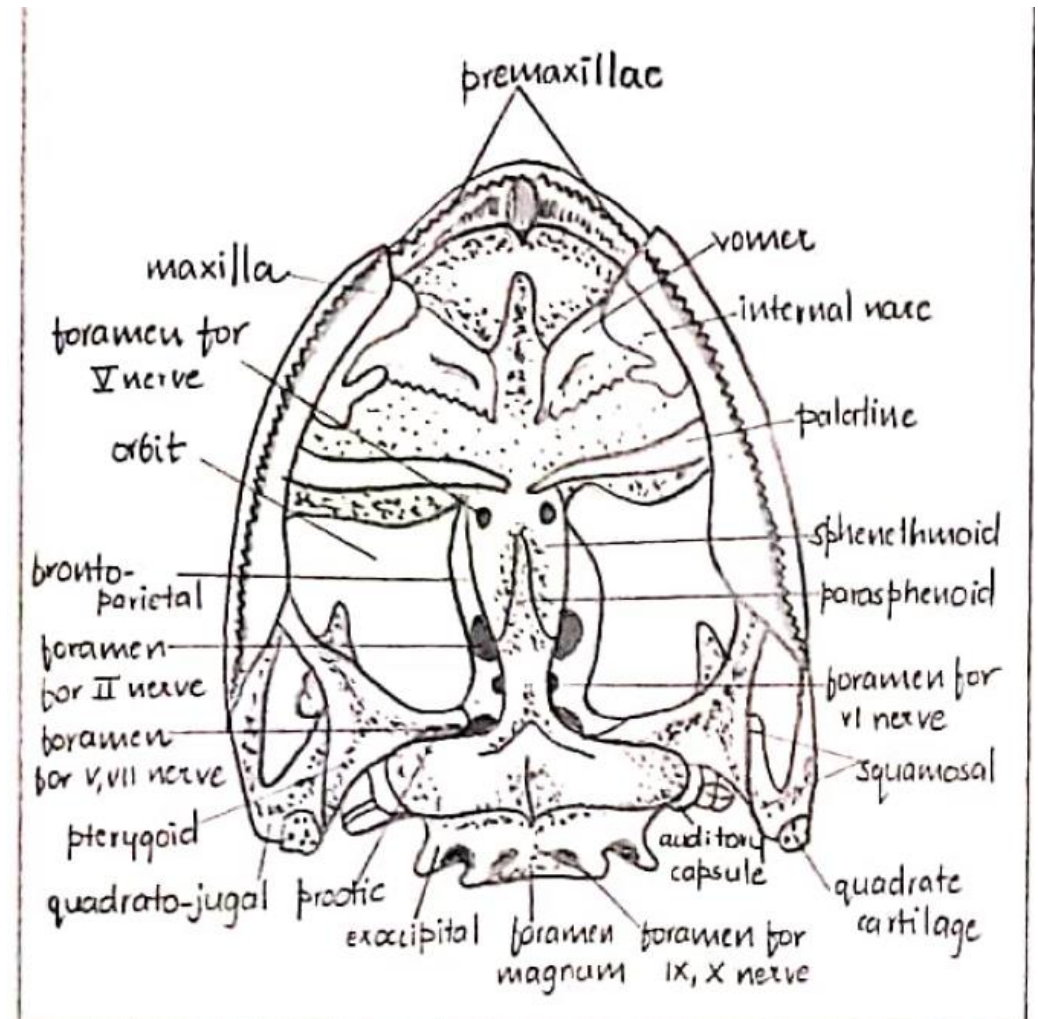
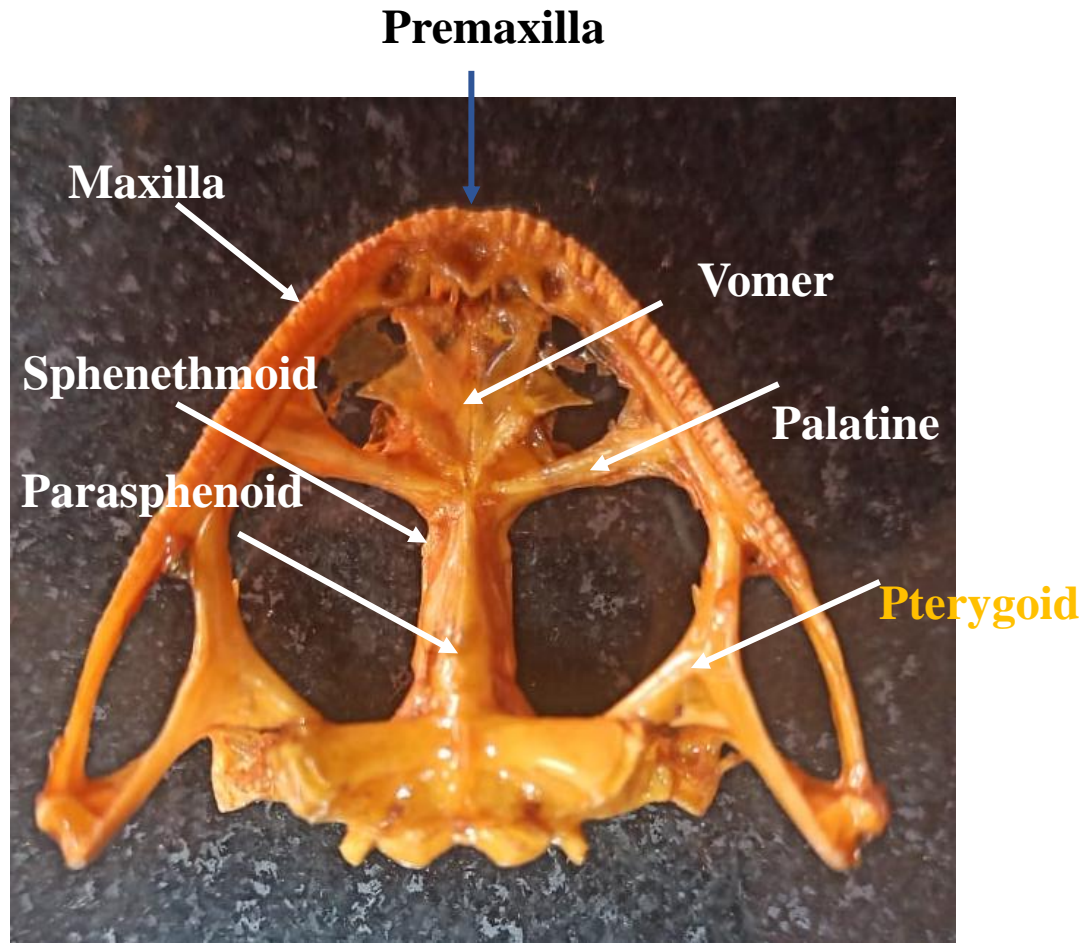
FROG



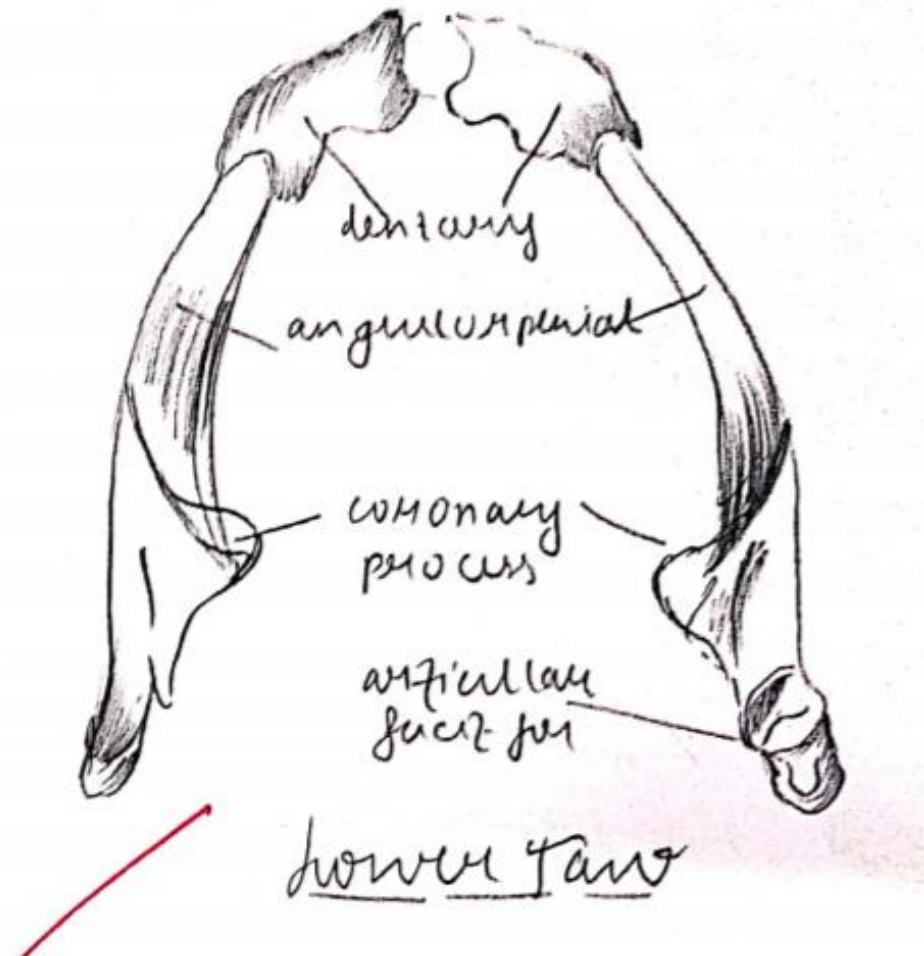
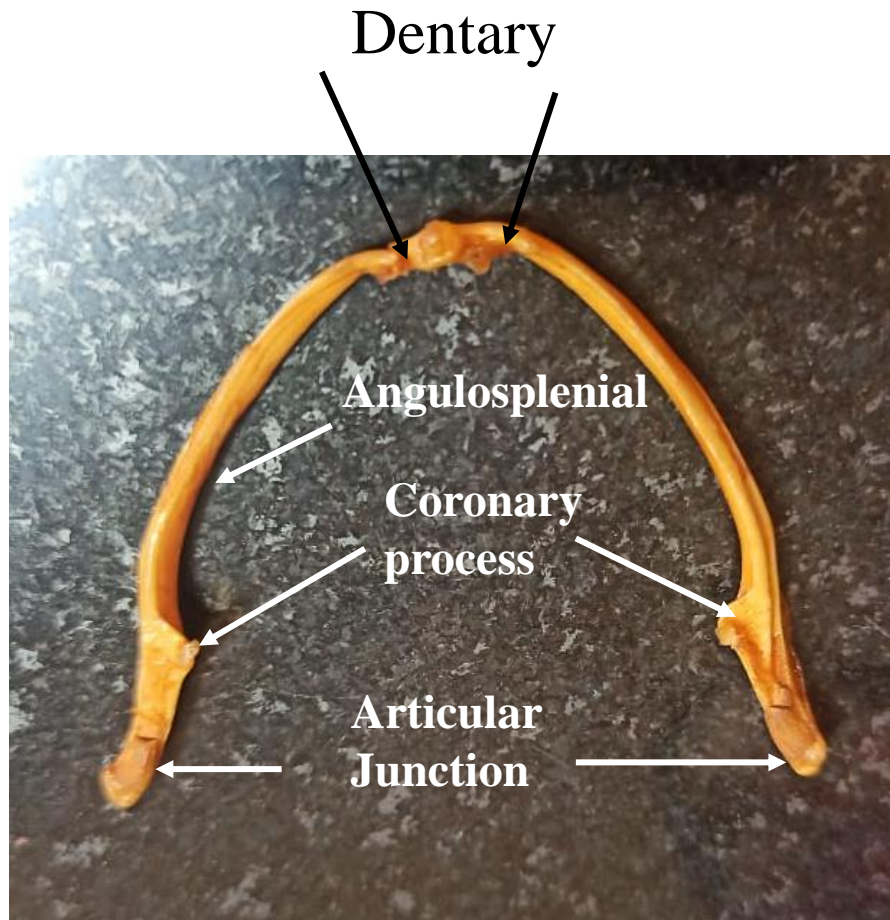
Skull: Dorsal View



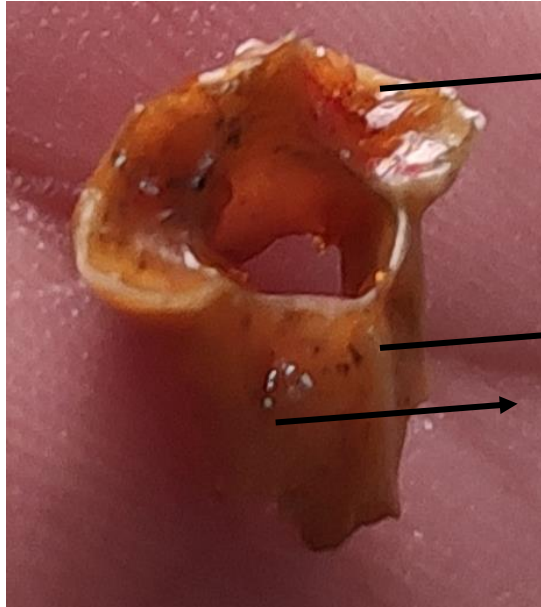
Skull : Ventral View



Lower Jaw



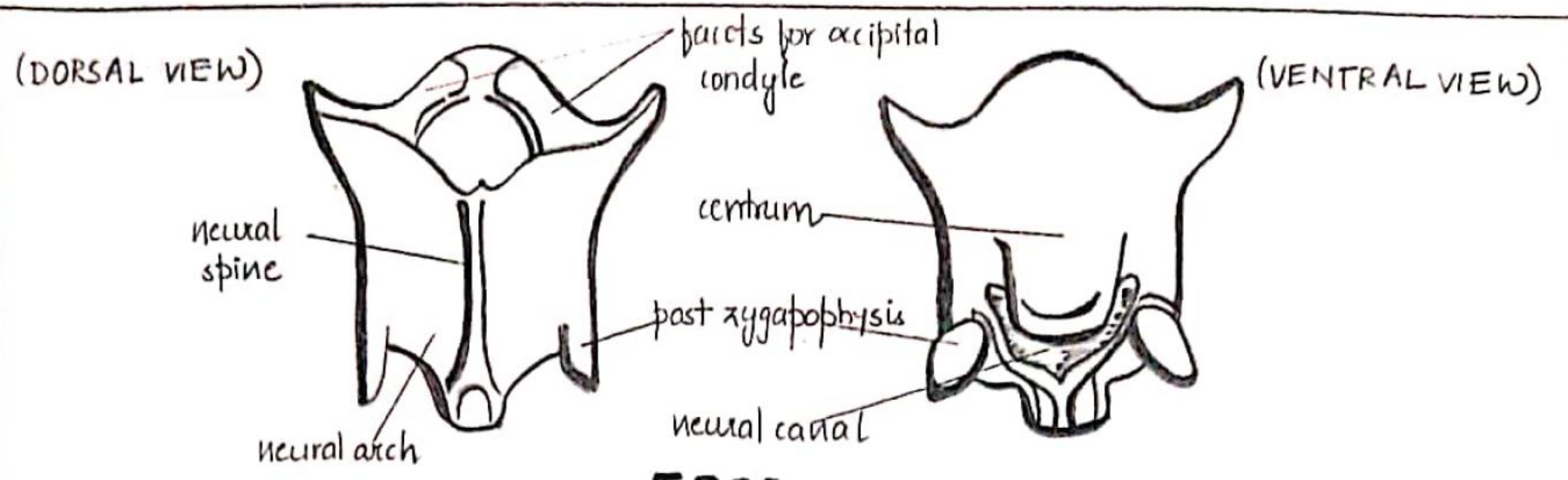
Vertebra: Atlas



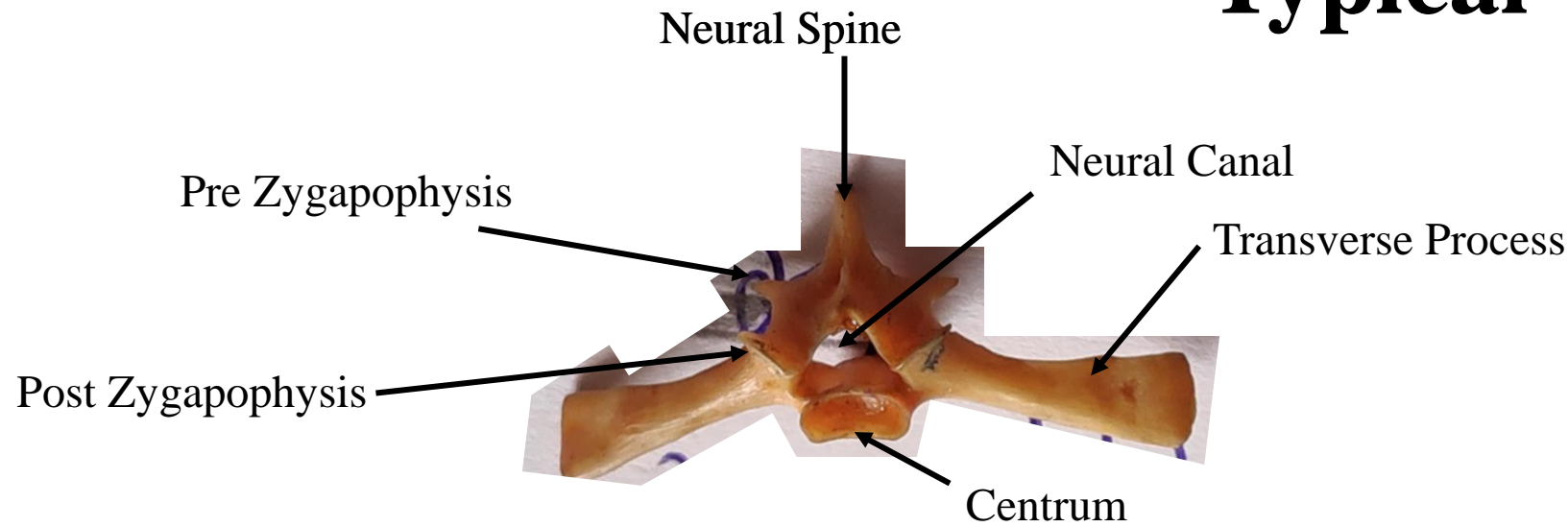
Facets for Occipital Condyle

Neural Spine

Neural Arch

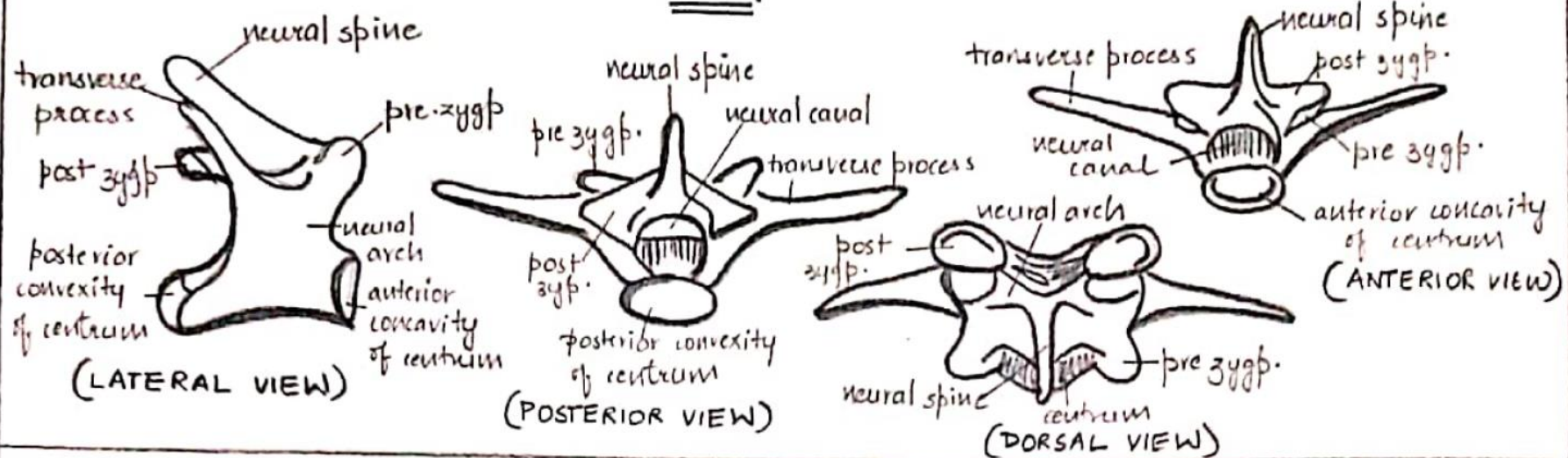


Typical Vertebra



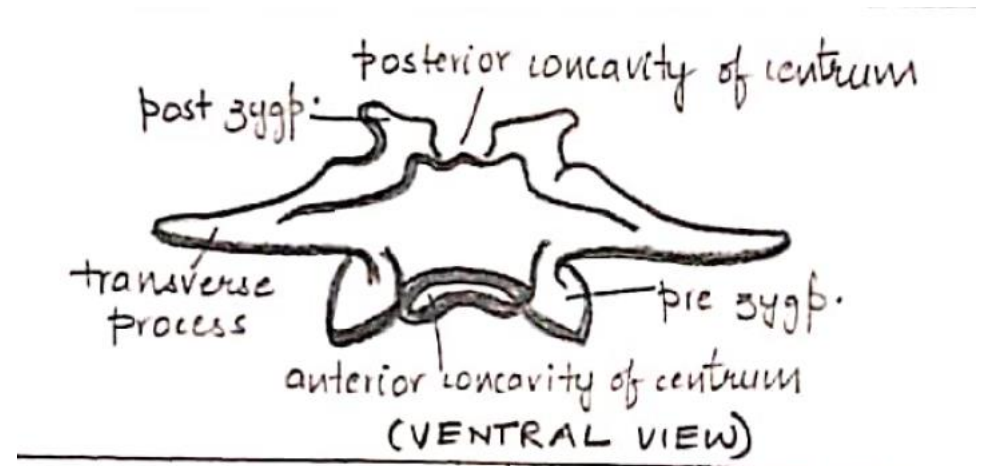
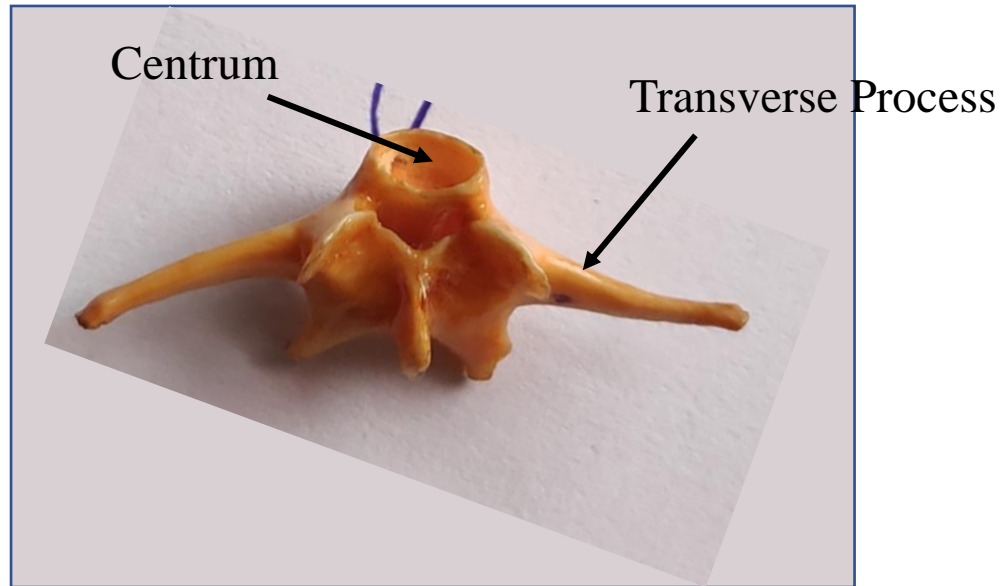
TYPICAL (Cervical) VERTEBRAE

FROG

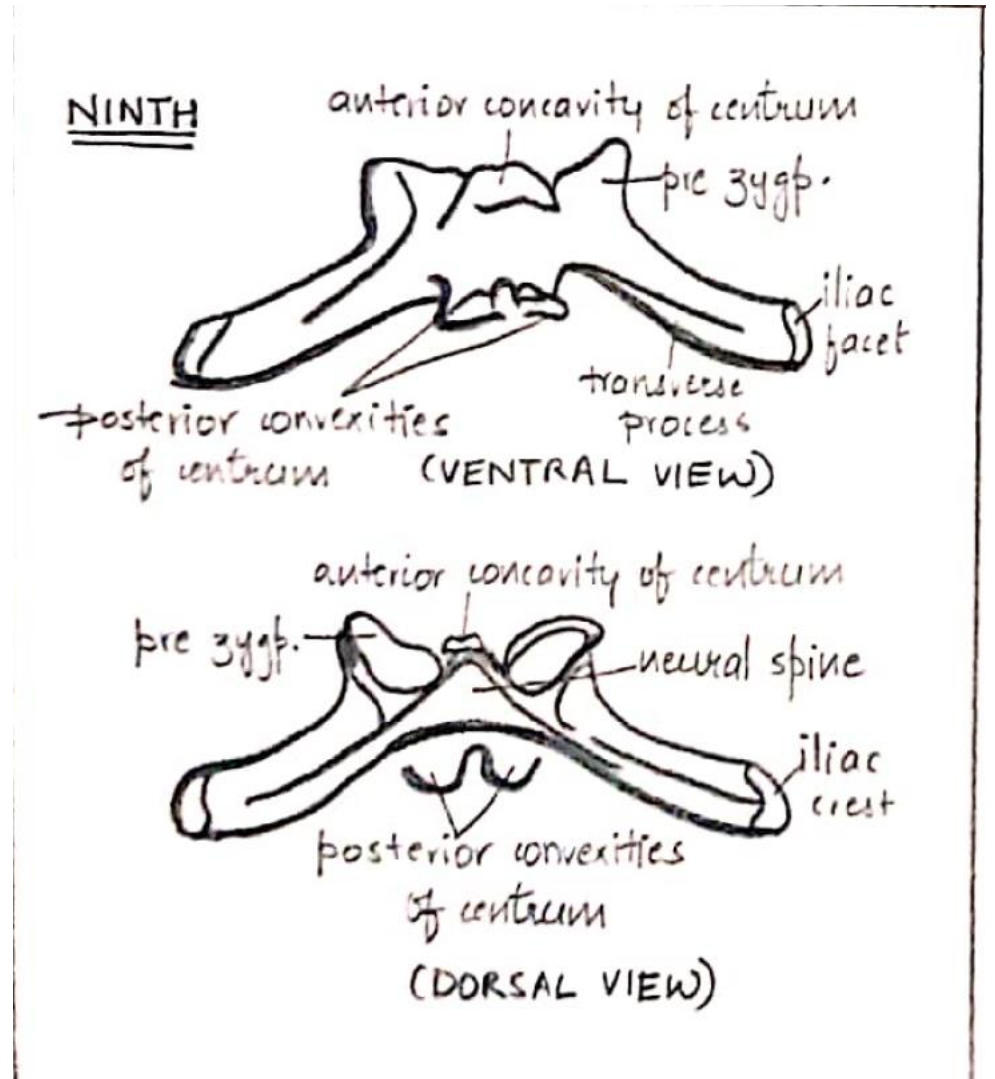
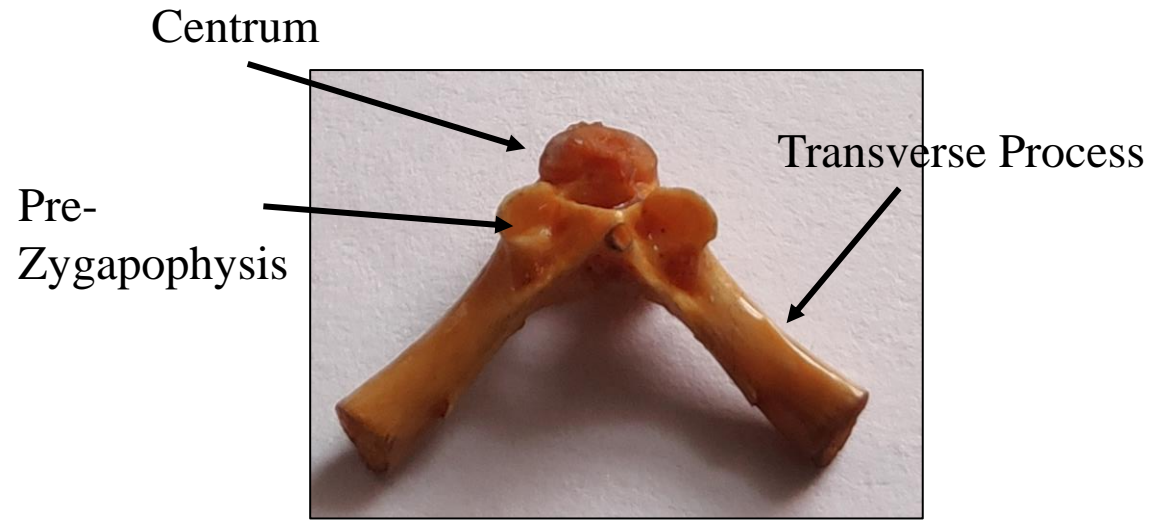


SOME UNIQUE VERTEBRA

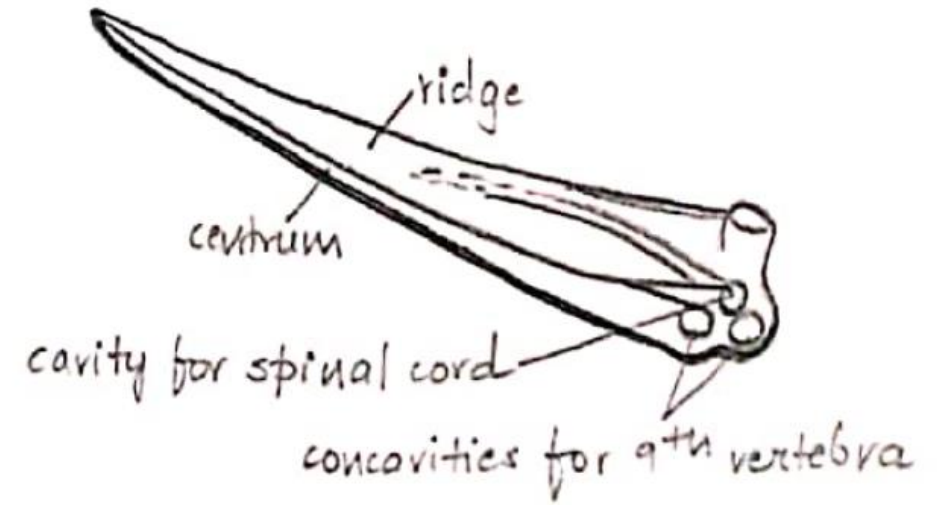
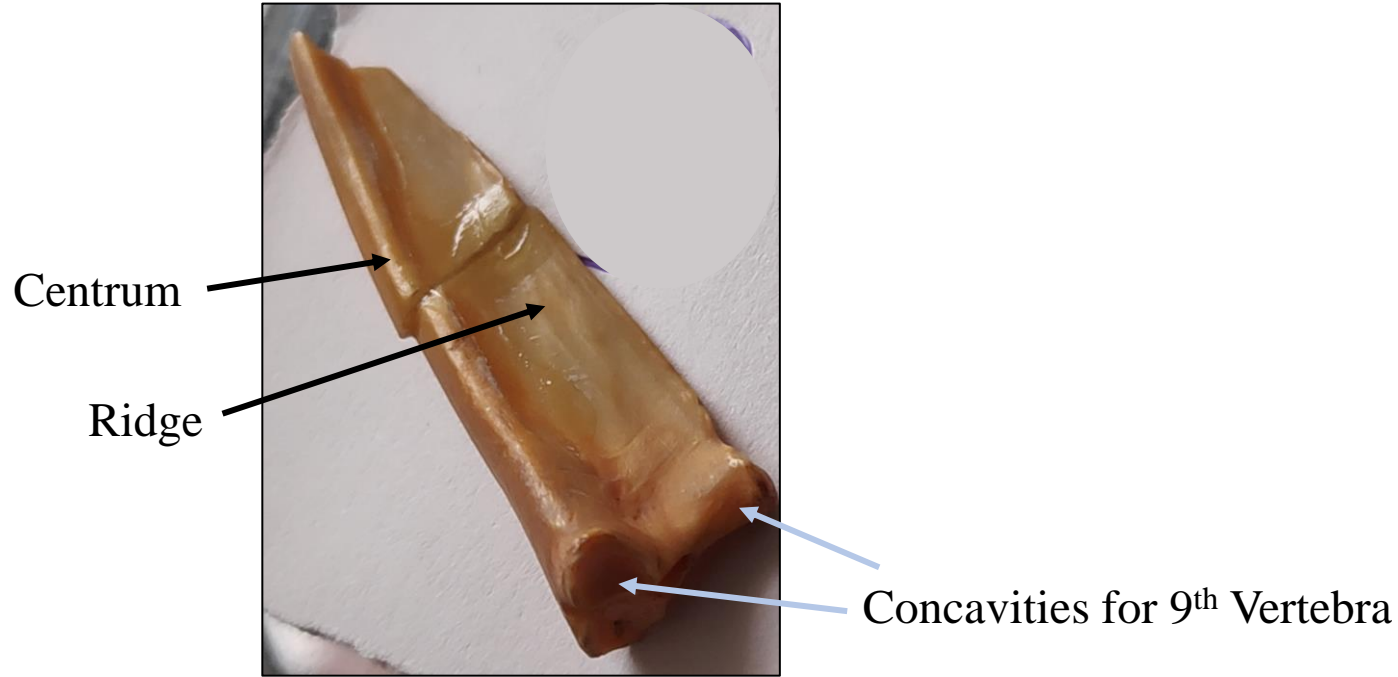
Eighth Vertebra



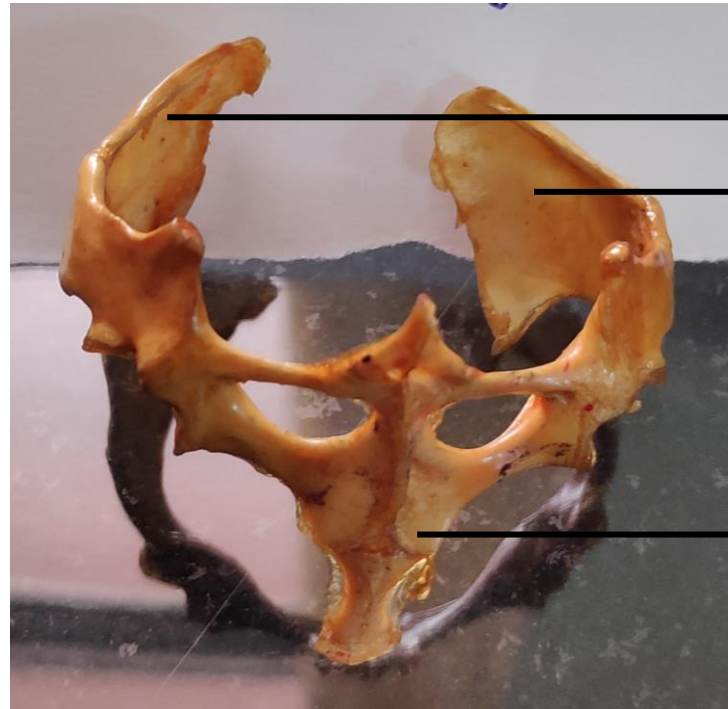
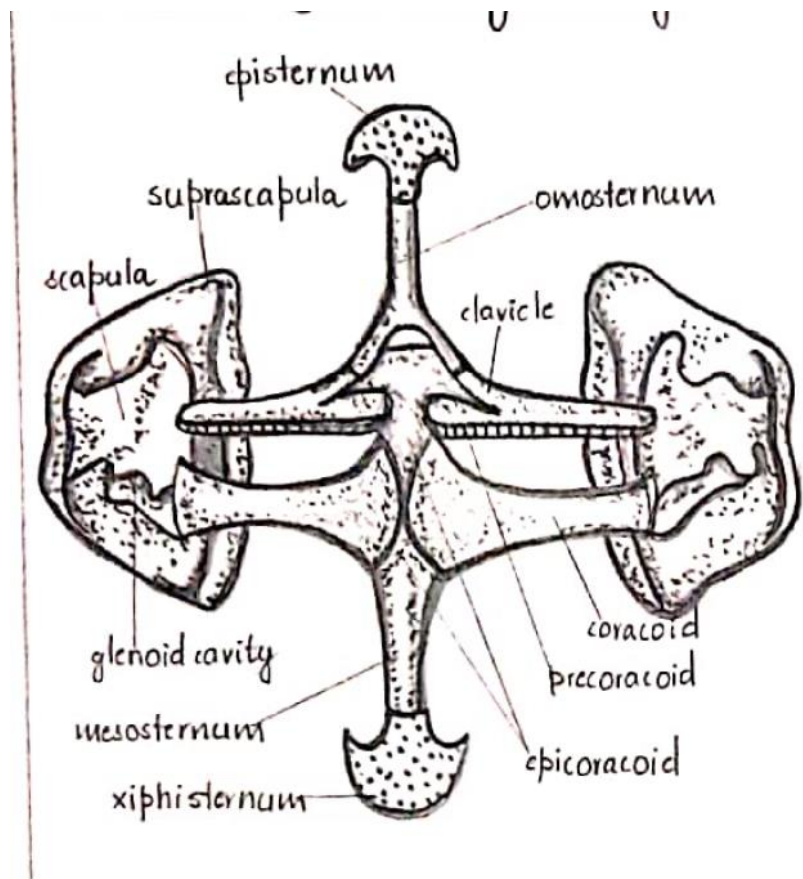
Ninth Vertebra



Urostyle



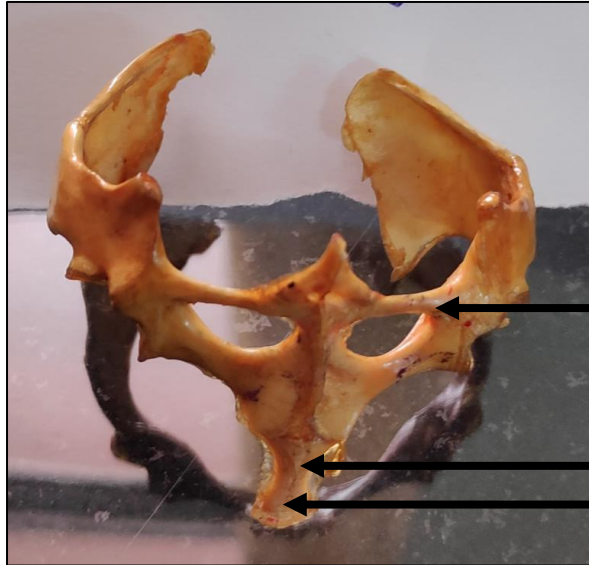
PECTORAL GIRDLE



Two halves of the Pectoral Girdle

Sternum

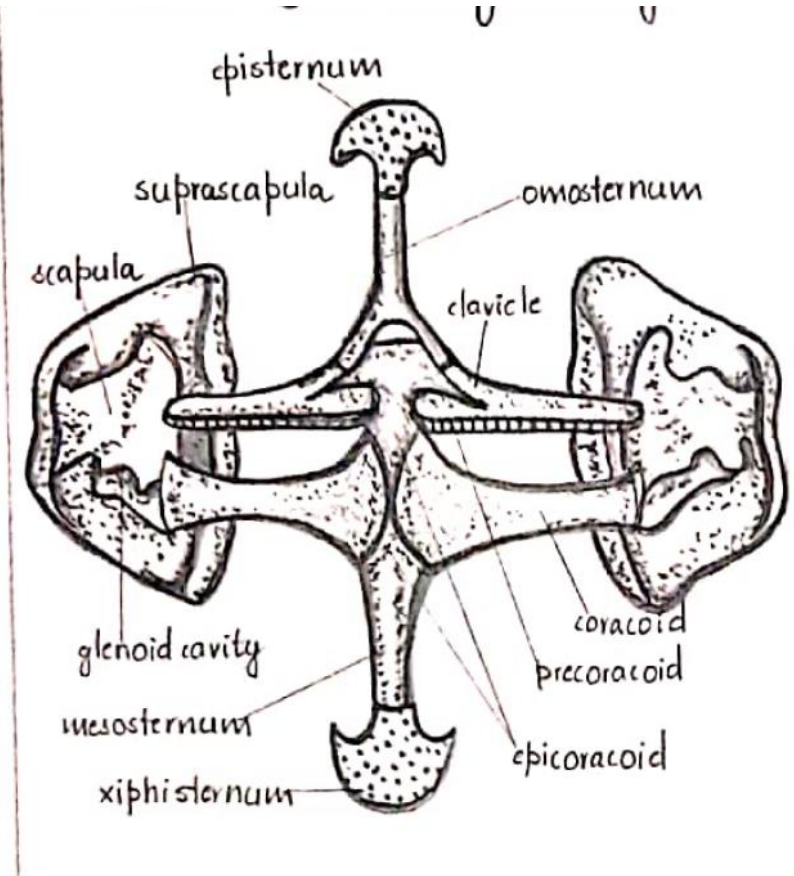
STERNUM



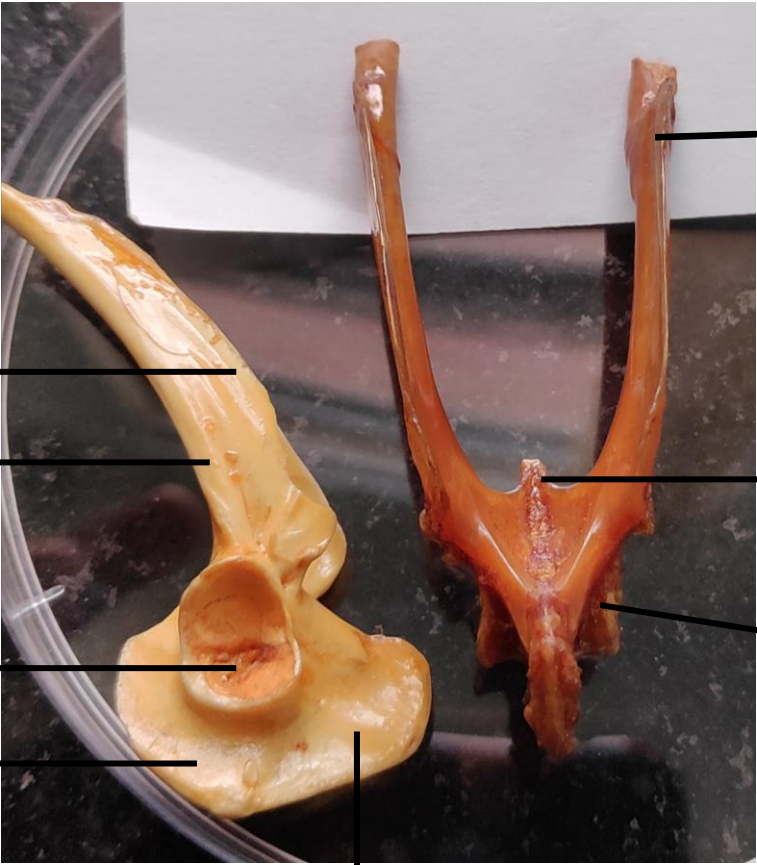
Clavicle

Mesosternum

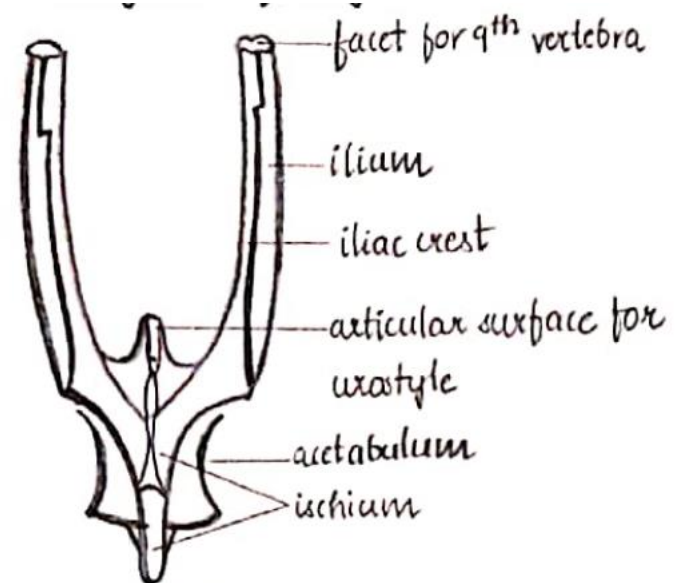
Xiphisternum



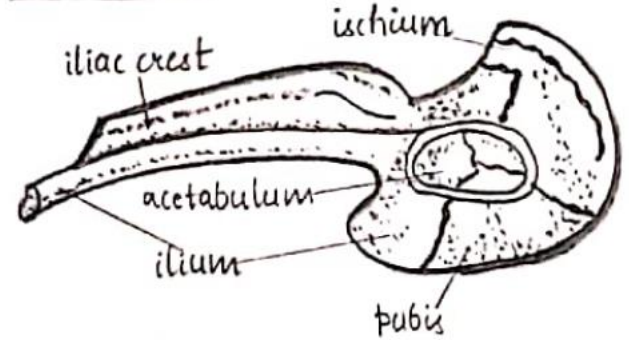
PELVIC GIRDLE FROG



Iliac Crest ←
Ilium ←
Acetabulum ←
Pubis ←
Ilium →
Articular Surface for Urostyle →
Acetabulum →
Ischium ↓



DORSAL VIEW



Fore Limbs: Humerus



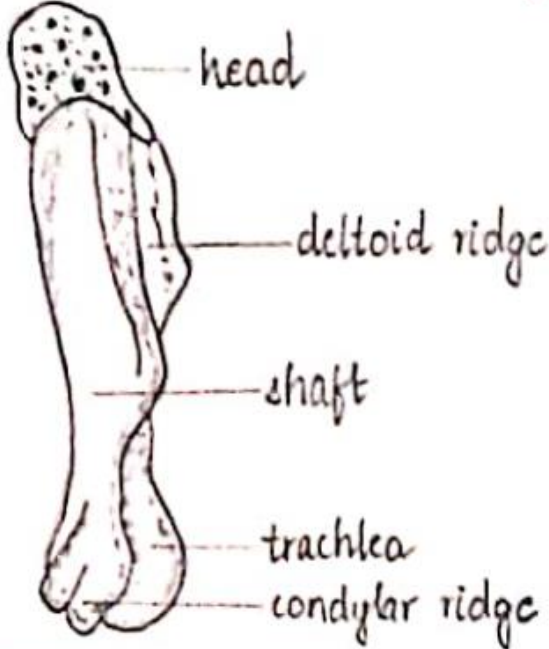
Head

Deltoid Ridge

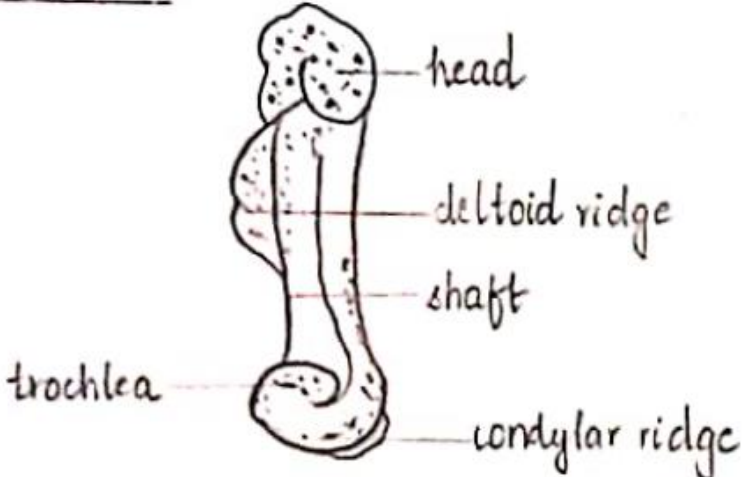
Shaft

Trochlea

Condylar Ridge

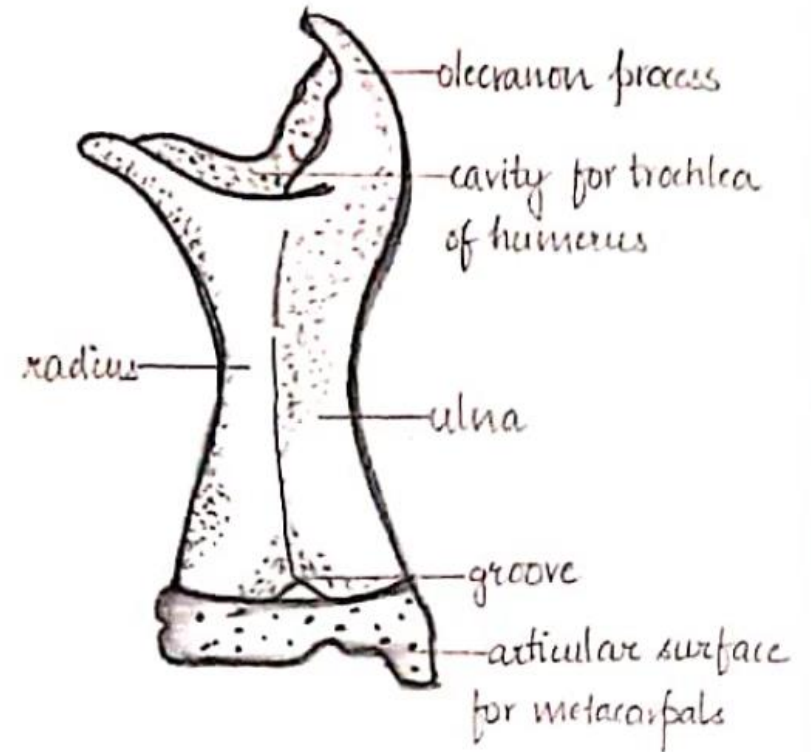
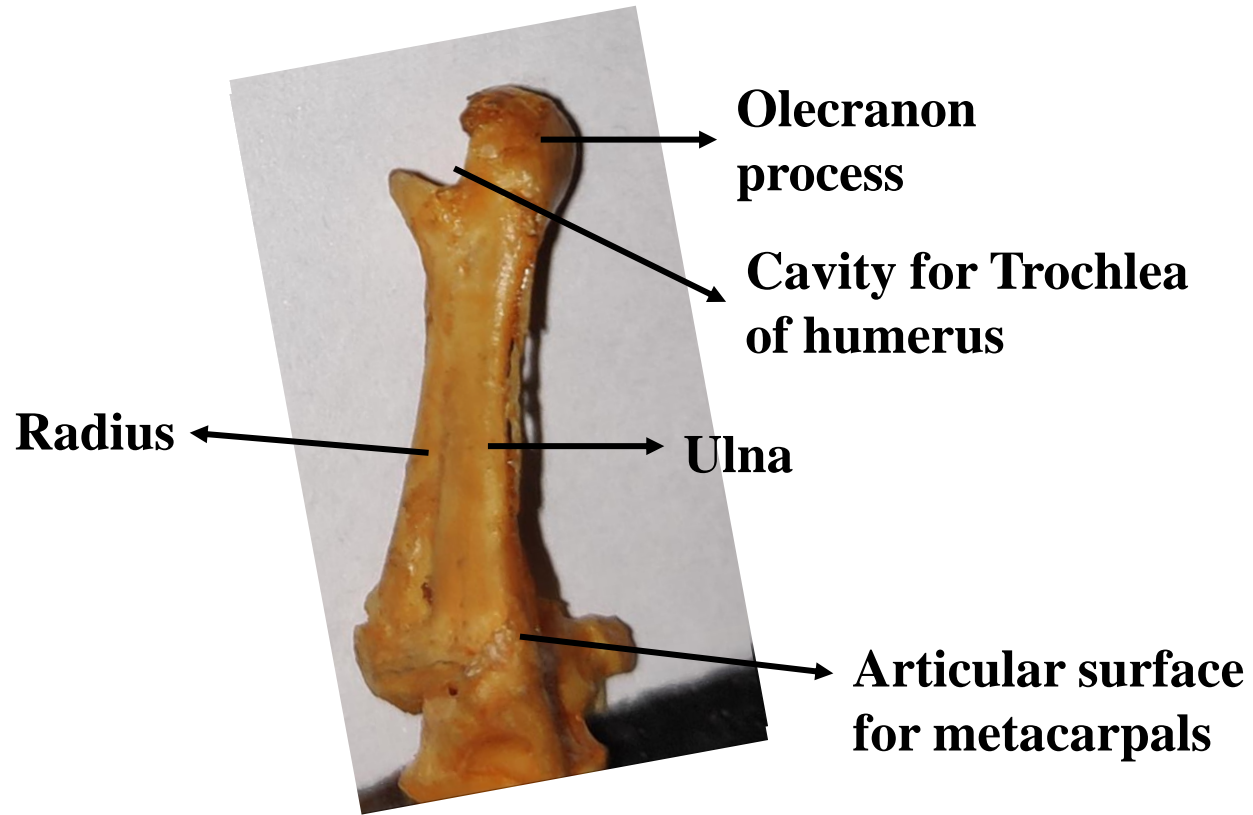


ANTERIOR VIEW

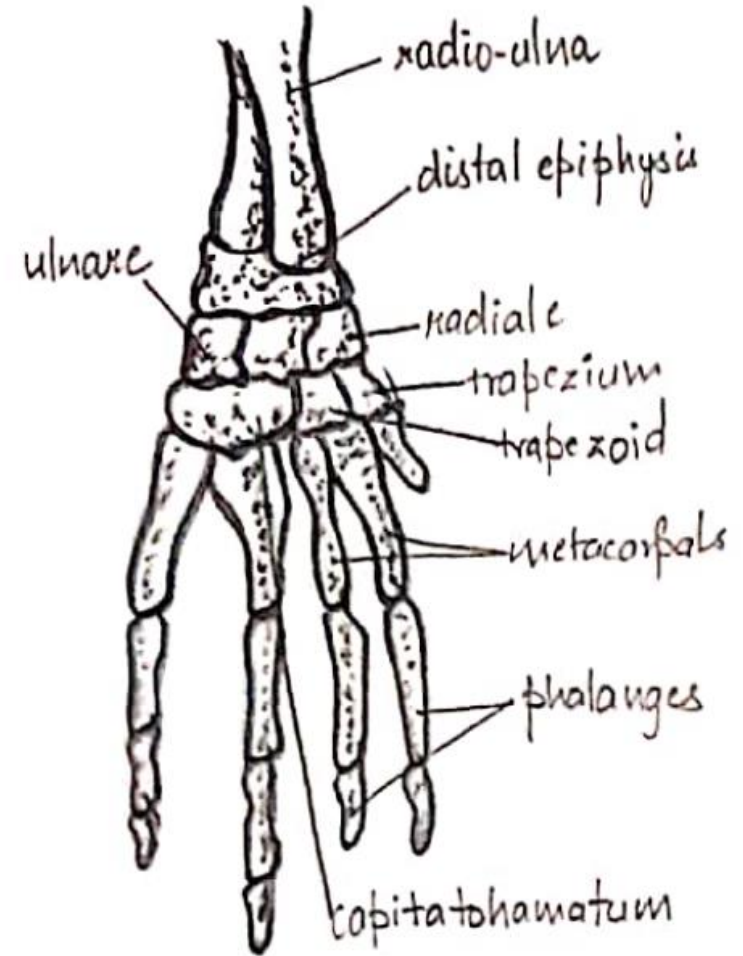


POSTERIOR VIEW

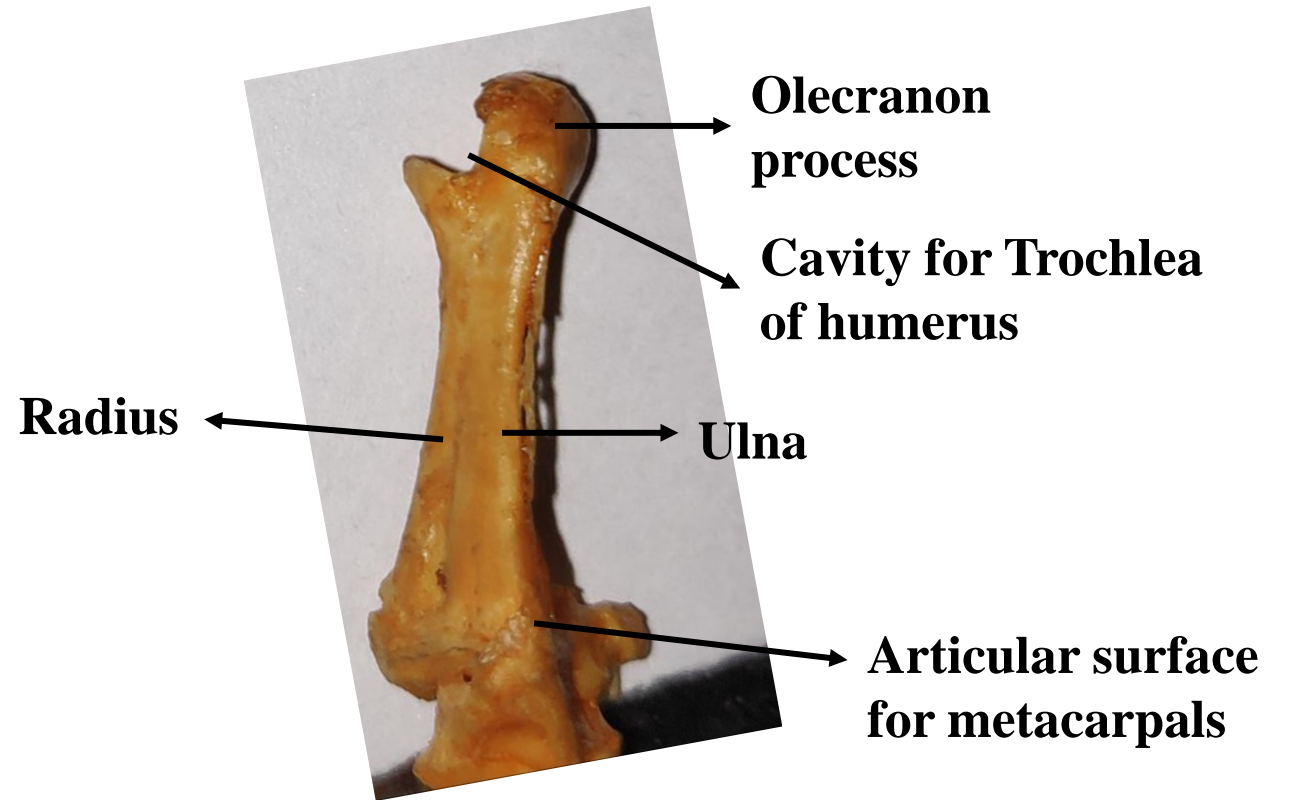
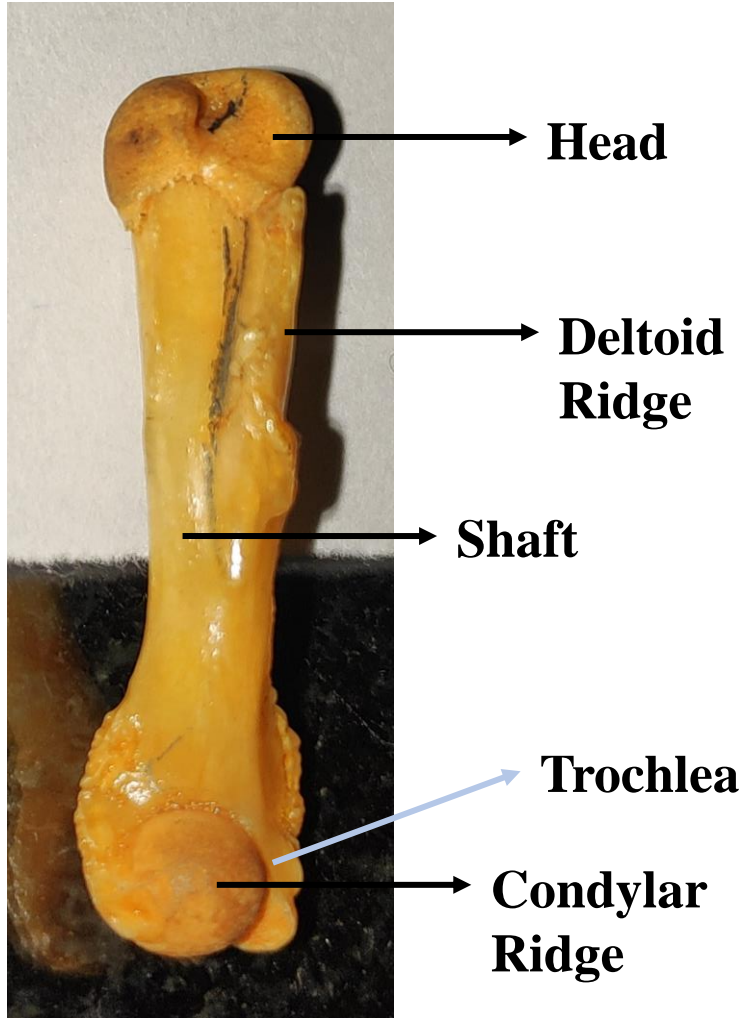
RADIO-ULNA



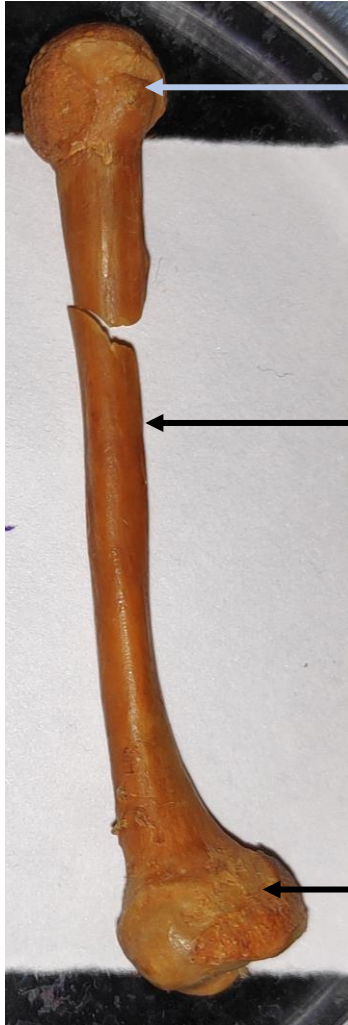
Bones of Hand



Fore Limbs



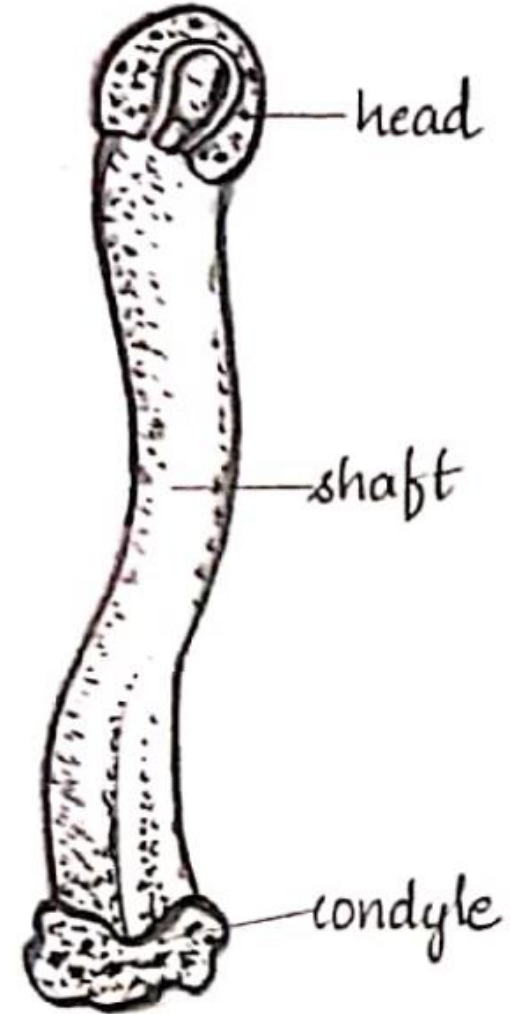
Hind Limbs: Femur



Head

Shaft

Condyle

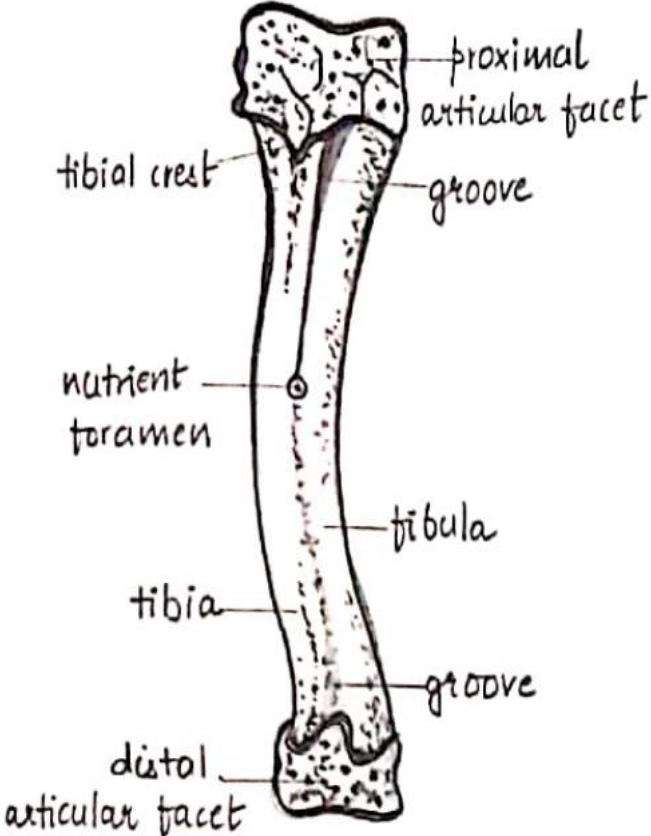
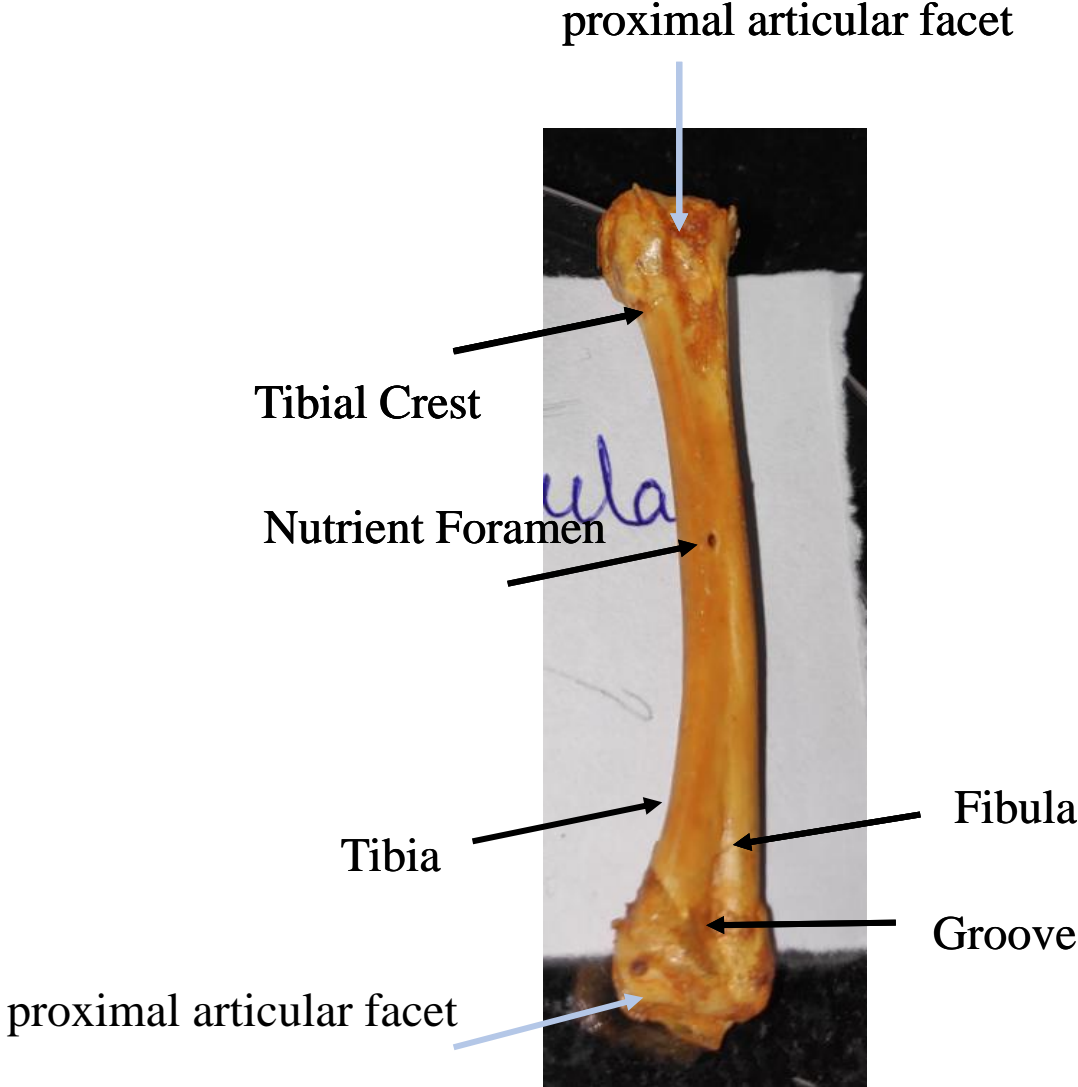


head

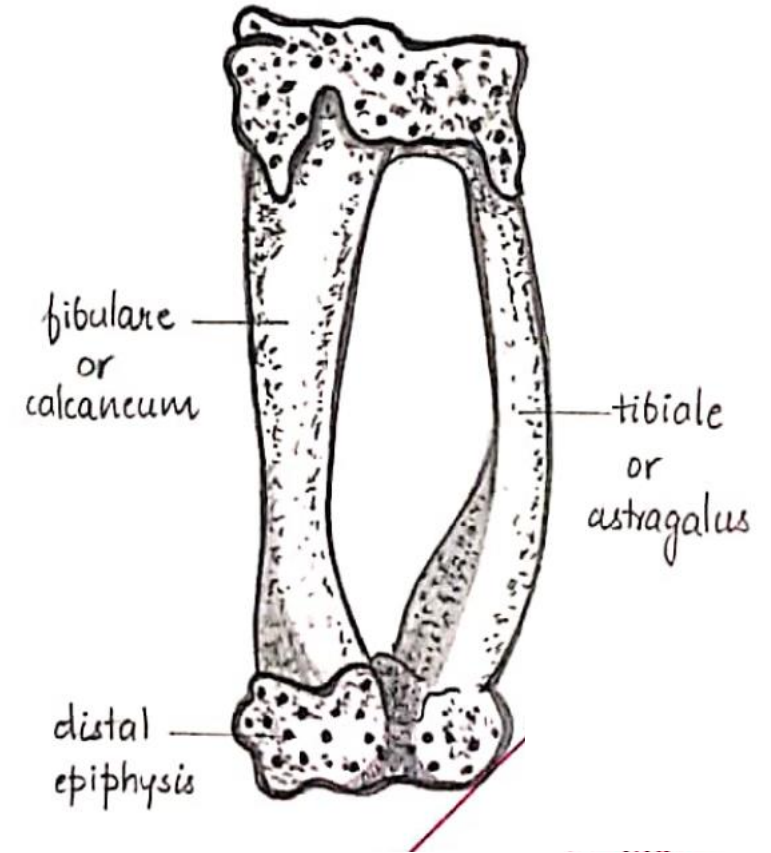
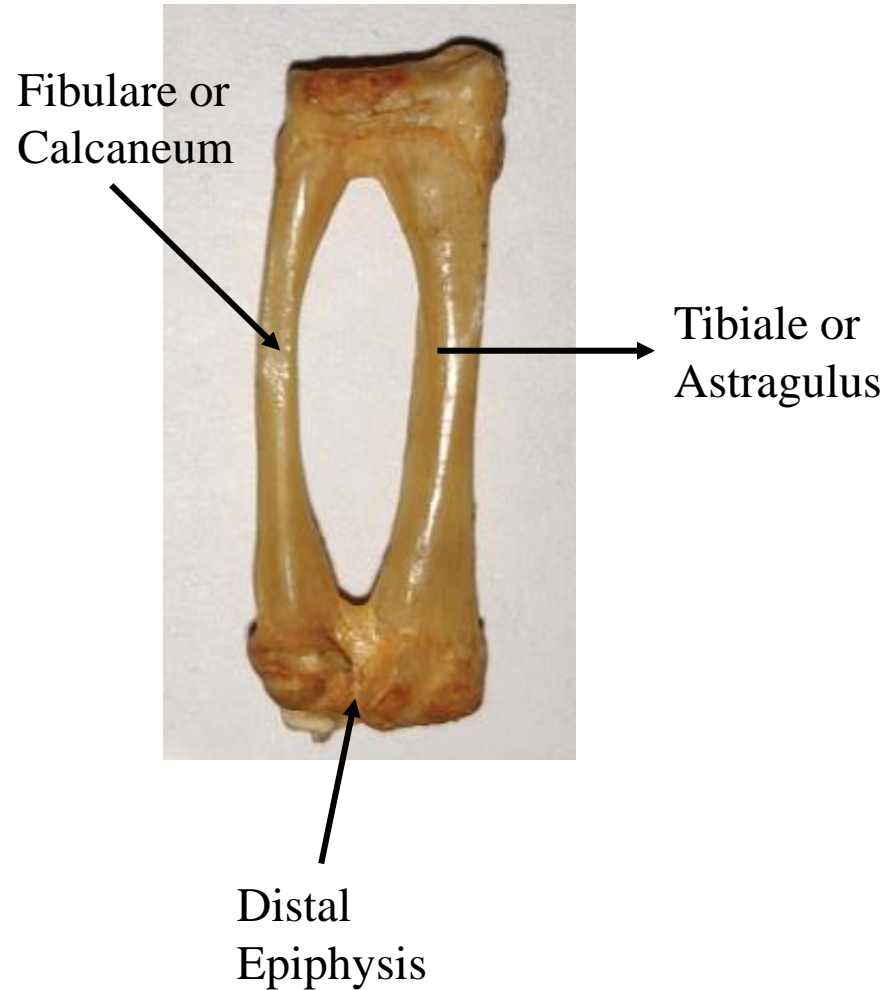
shaft

condyle

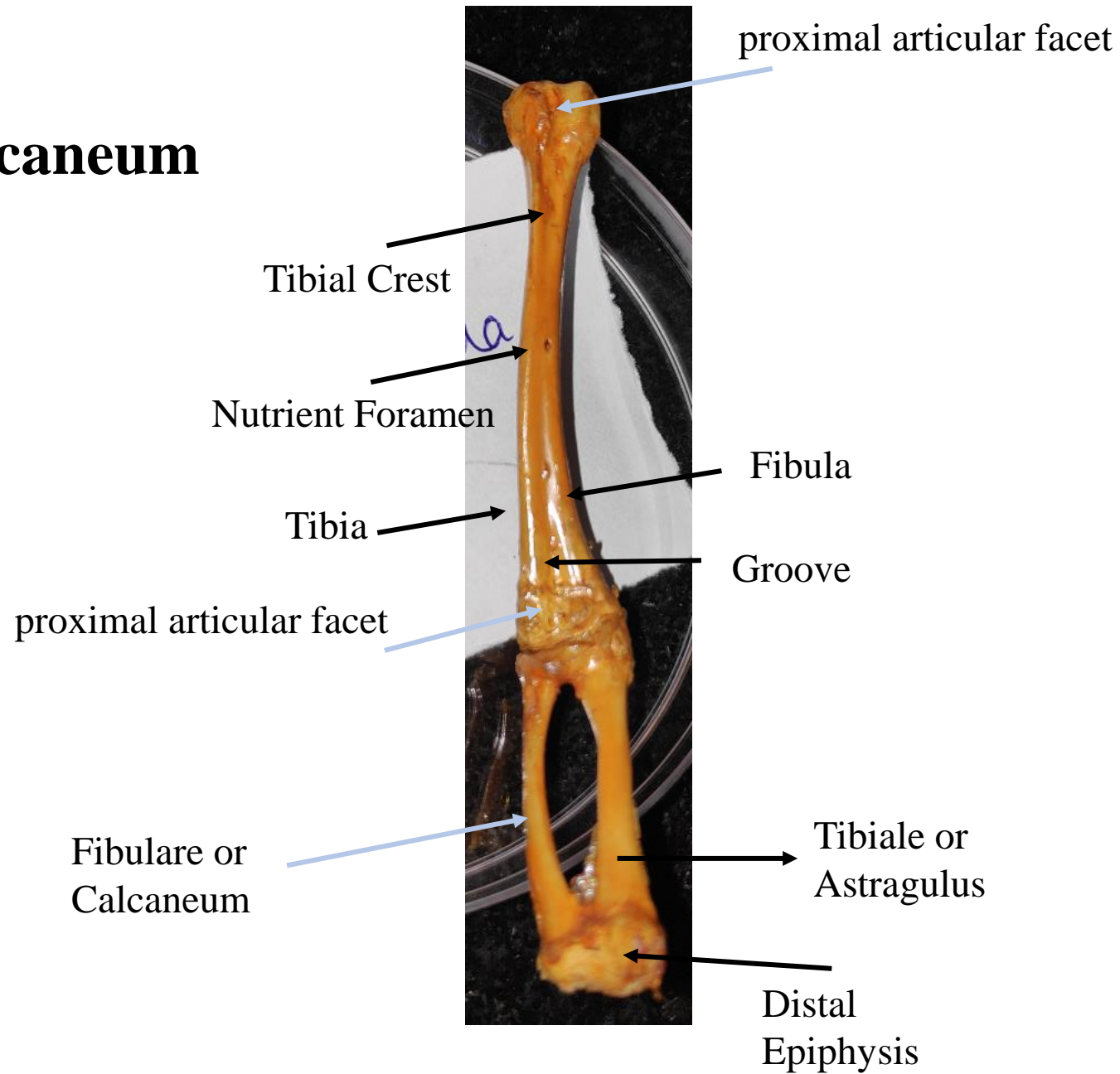
Tibio-fibula



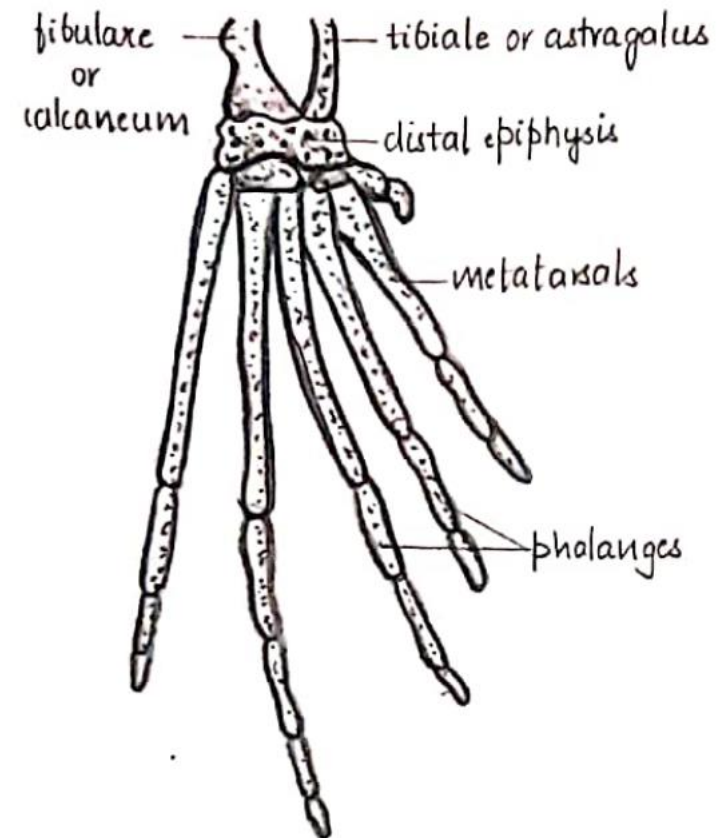
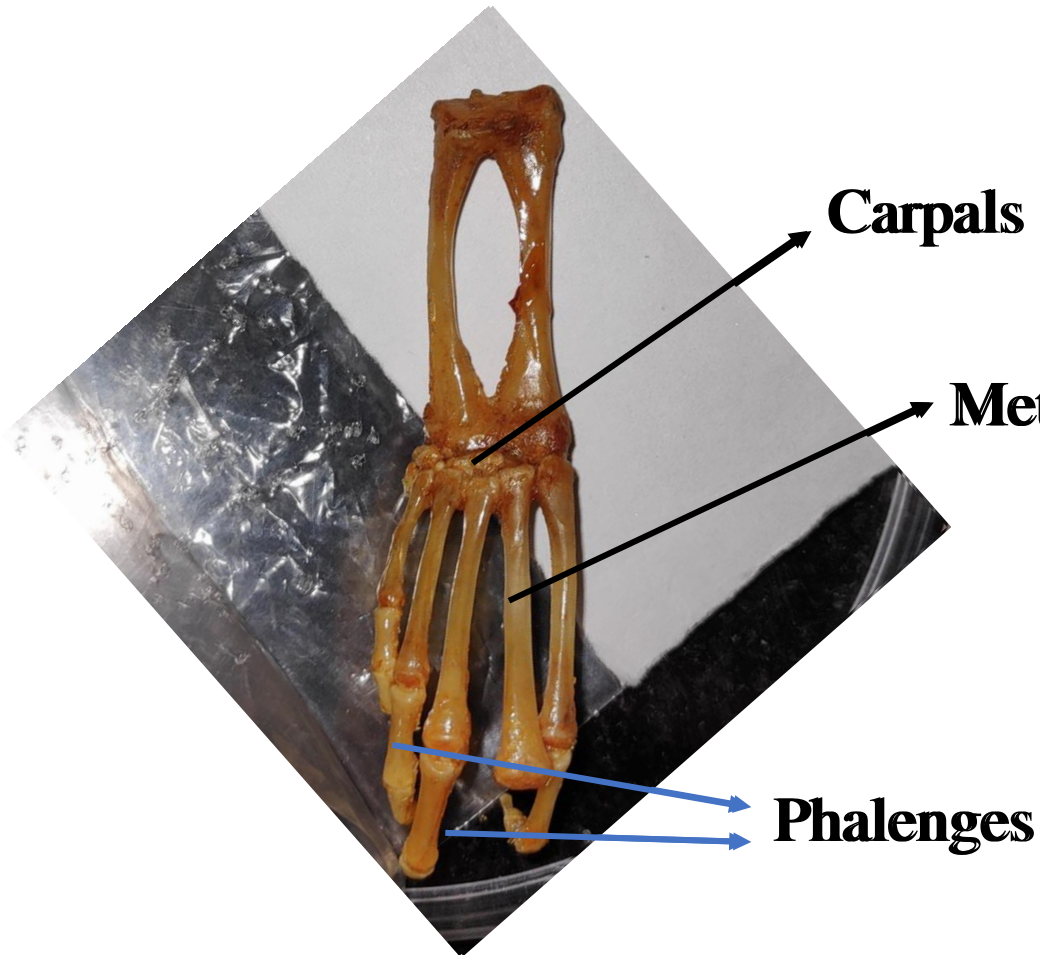
Astragalus-Calcaneum



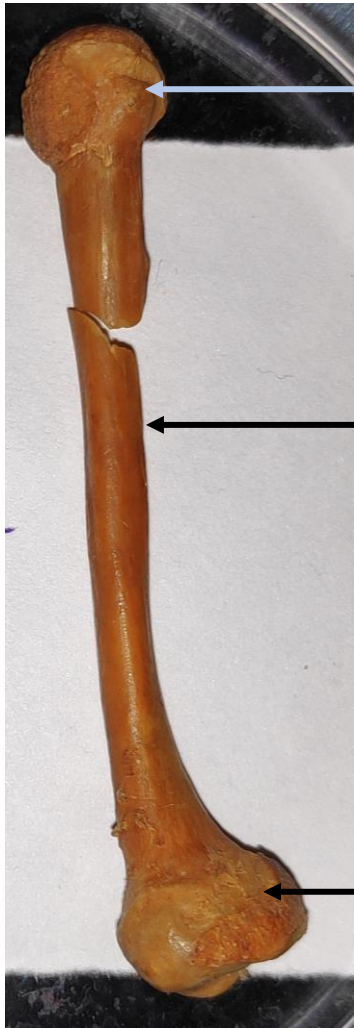
Tibio Fibula & Astragulus Calcaneum



Bones of foot



Hind Limbs



Head

Shaft

Condyle

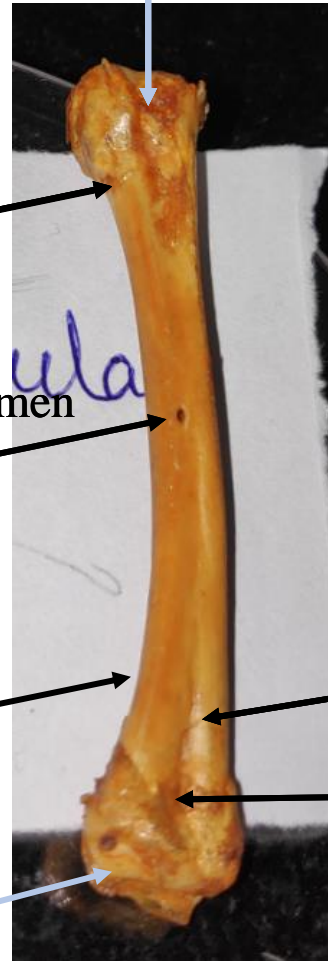
proximal articular facet

Tibial Crest

Nutrient Foramen

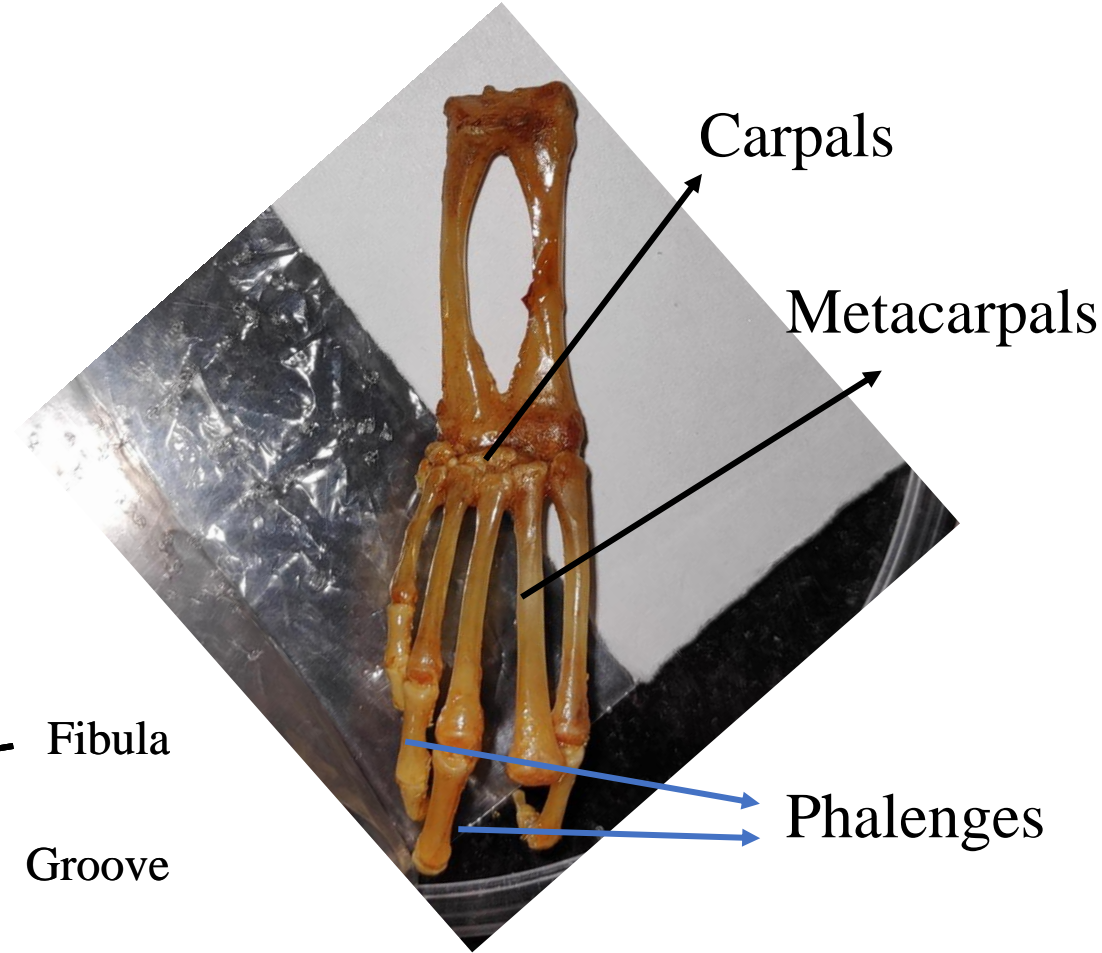
Tibia

proximal articular facet



Fibula

Groove



Carpals

Metacarpals

Phalanges