## Comparative Anatomy/Practical Chapter one: Integumentary system

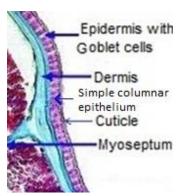


FIGURE 1. Vertical section through Amphioxus skin.

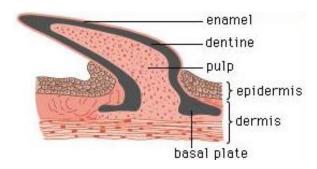


FIGURE 2: Vertical section through shark (cartilaginous fish) skin.

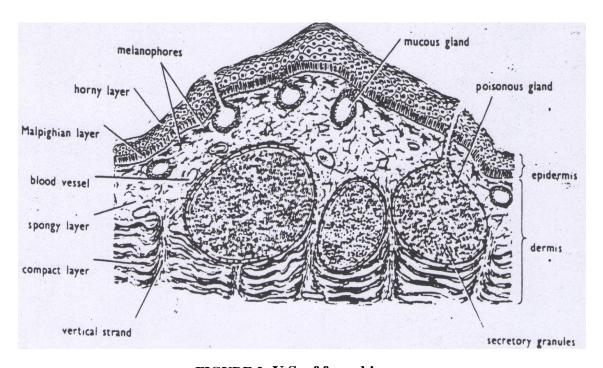


FIGURE 3: V.S. of frog skin.

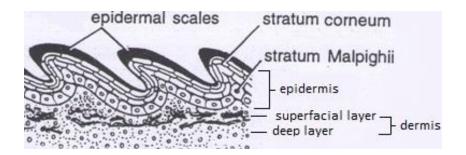


FIGURE 4: V.S. of lizard skin.

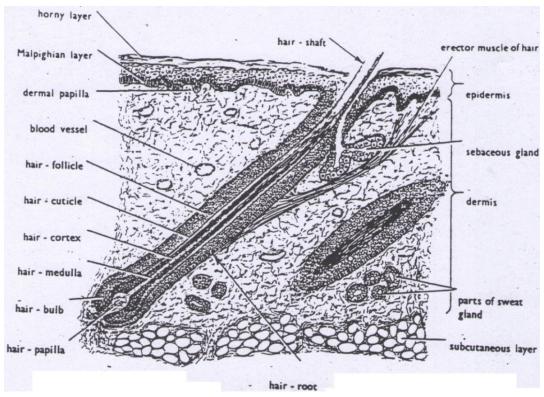
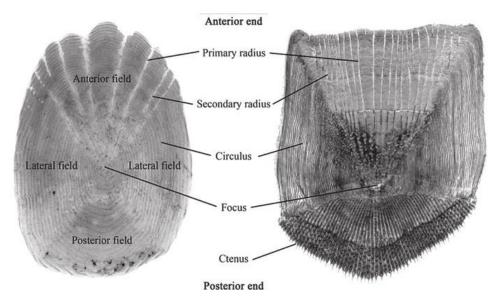


FIGURE 5. V.S. through the rabbit skin.



FIGURE 6. Oil or uropygial gland at the base of tail rudiment of birds to preen the feathers to be impervious with water.



A B

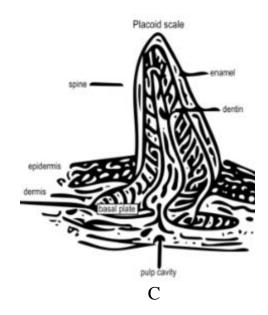


FIGURE 7. Varied types of fish dermal scales: A. cycloid, B. ctenoid, C. placoid.



A B FIGURE 8. A- Carapace: the dorsal half of the chelonian shell. B-Plastron: the ventral half of the shell.

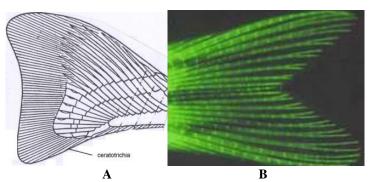


FIGURE 9. Fin rays A- Ceratotrichia, thread like; B- Lepidotrichia, segmented and branched.

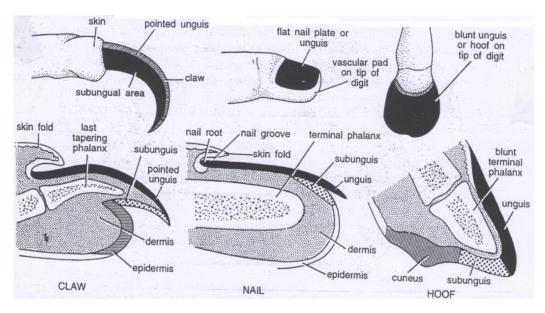


FIGURE 10. Three homologous corneal structures: claw; nail and hoof. They have same developmental origin and built up on same structure.

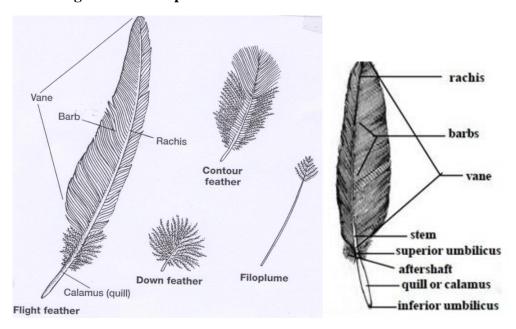


FIGURE 11. Three types of bird feathers.

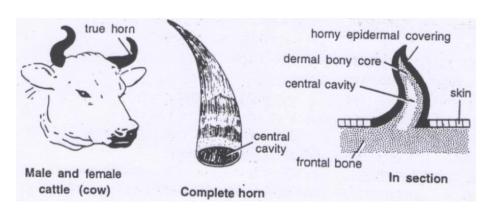


FIGURE 12. External feature and structure of true hollow horn.

Chapter two: Endoskeletal system

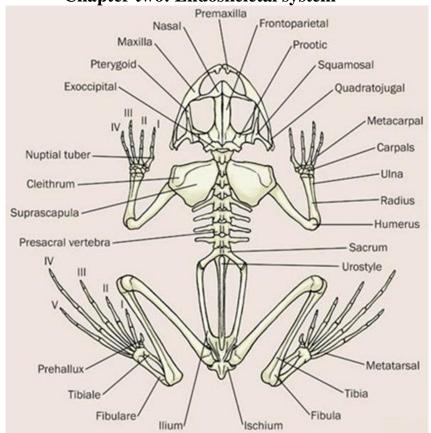


FIGURE 1: Frog endoskeleton.

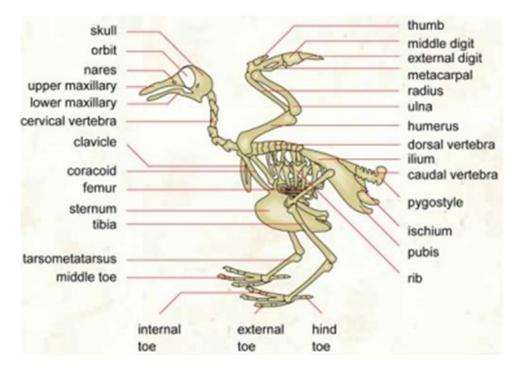


FIGURE 2: Endoskeleton of birds.

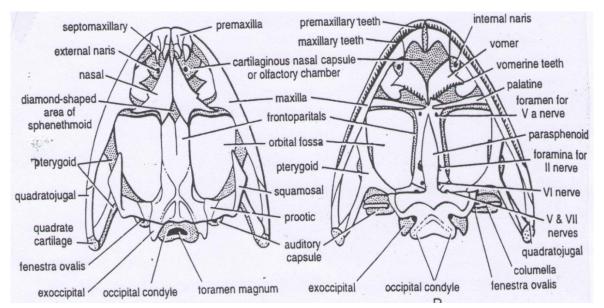


FIGURE 3. Frog skull, A. Dorsal view, B. Ventral view.

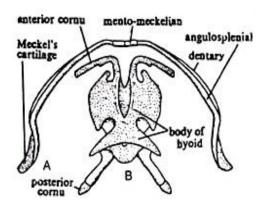


FIGURE 4. Frog: A- Lower jaw, B- Hyoid apparatus.

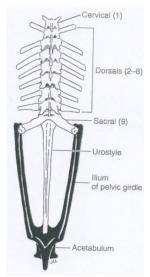
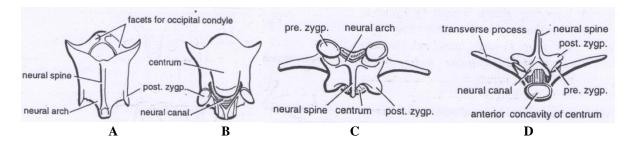
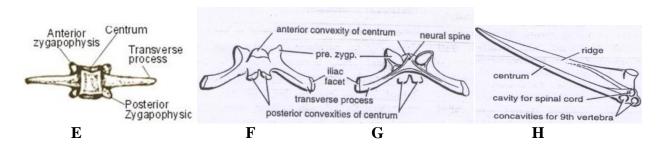


FIGURE 4. Vertebral column and pelvic girdle (black part) of frog.



Atlas: A- dorsal view, B- ventral view. Typical vertebra: C- dorsal view, D- ventral view.



E- 8<sup>th</sup> Vertebra (dorsal view). 9<sup>Th</sup> Vertebra: F- Ventral, G- dorsal. H- Urostyle, lateral view. FIGURE 5. Frog's vertebrae.

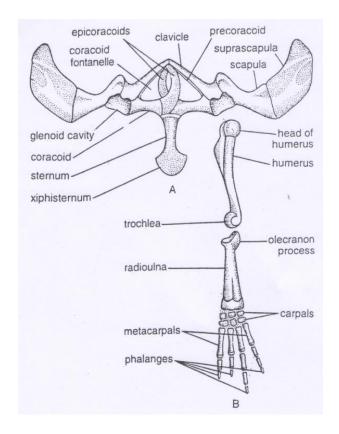


FIGURE 6. A- Frog pectoral girdle, B- Bones of frog fore limb.

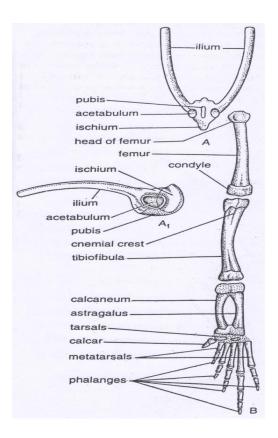


FIGURE 7: Pelvic girdle and hind limb of the frog, A-Pelvic girdle, dorsal view. A1- Pelvic girdle side view, B- Bones of the hind limb.

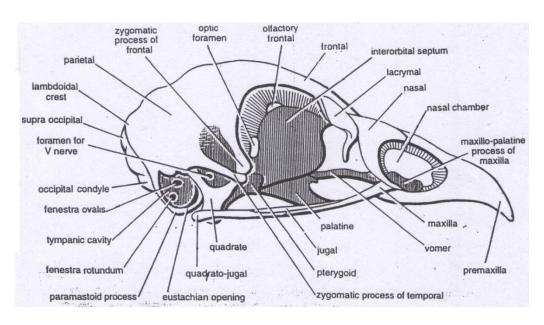


FIGURE 8. Bird cranium and upper jaw.

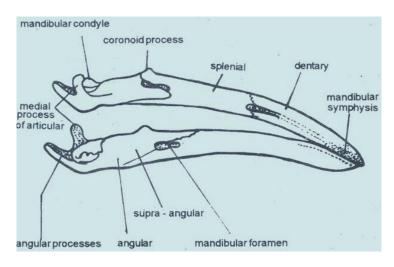


FIGURE 9. Bird's lower jaw or mandible.

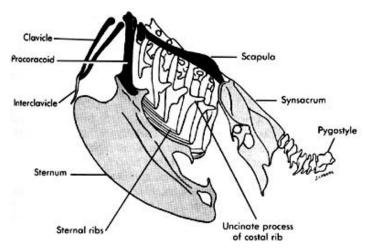


FIGURE 10. Part of the pigeon endoskeleton, showing complete ribs with two parts: dorsal, which articulate with vertebral column, called vertebral rib which bears uncinate process. Ventral part called sternal rib, articulate with keeled sternum.

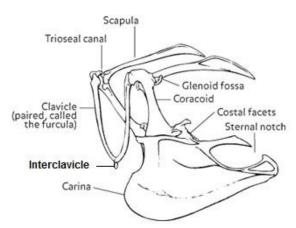


FIGURE 11. Pigeon's pectoral girdle bone articulates with sternum through coracoid.

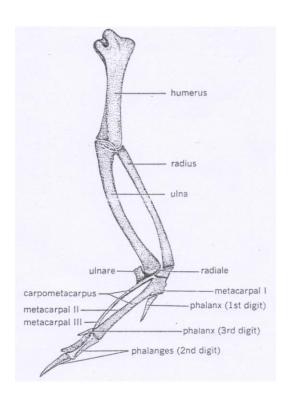
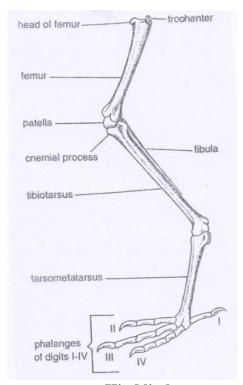


FIGURE 12. Wing bones of pigeon.



antitrochanter ilium
ilium
ischium
acetabulum
obturator foramen ischiadic foramen

Pelvic girdle

**Hind limb** 

FIGURE 13. Pigeon pelvic girdle and hind limb.



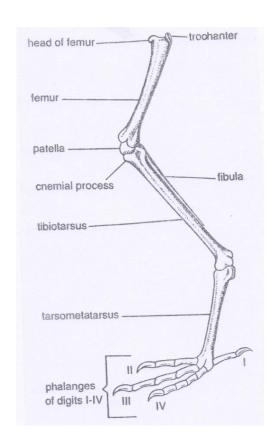


FIGURE 14: Pigeon left hind limb bones.