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Concept of Ratitae & Carinatae (Birds)

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Study of Bird is called Ornithology. Indian ornithologists known as Dr. Salim Ali. Birds belongs to class Aves. The living wingless or flightless bird belong to the super order Palaeognathae (Ratitae) of the subclass Neornithes.

Difference between Ratitae and Carinatae

Structure	Ratitae	Carinatae
- <u>Distribution</u>	Discontinuous, Not found in India	Cosmopolitan.
- <u>Habitat</u>	Terrestrial,	Arboreal, Terrestrial, or Aquatic in nature.
- <u>Locomotion</u>	Flightless-bird, Running bird.	Flying birds
- <u>Size</u>	Usually large - sized,	usually small-sized.
- <u>wings</u>	vestigial or Absent	- well developed.
- <u>Legs</u>	Large cursorial,	- variously adapted.
- <u>Feathers</u>	Without interlocking mechanism. Barbs free.	- Barbs interlocked.
- <u>Down-feathers</u>	- Absent	Present.
- <u>Hoary-sheath of Beak</u>	- Scales as to several pieces.	undivided.
- <u>oil gland</u>	- usually absent.	usually present.
- <u>Types of skulls</u>	Isomacognathous.	Meognathous.
- <u>Salivary</u>	Short - down asti-entate with rostrum	- long, articulate with parasphenoidal rostrum

Contd.Difference between Ratitae & Carnivora

<u>Structure</u>	<u>Ratitae</u>	<u>Carnivora</u>
- Sternum	Immovable	Movable.
- Sternum	Flat, raft like, ducto vestigial or no keel	Well developed with ventral keel - present.
- Uncinate process	vestigial or Absent	Present.
- Coracoid & Scapula	Comparatively small.	Comparatively large.
- Clavicles	Small or absent. NO furcula.	Both clavicles & interclavicles fused to form V shaped furcula. - Become fused posterior part.
- Ilium & Ischium	usually remain free in posterior part.	Pneumatic - well developed,
- Limb-bones	not pneumatic	
- Pectoral Muscle	poorly developed.	
- Caecum	large,	Small,
- Gyninx (Coel- bux)	large, usually present <u>Absent</u> .	Small , Absent usually <u>present</u> .
- Air Sacs	poorly developed usually absent.	Well developed. Present.)
- Tarsi	Present.	poorly developed <u>Absent</u>
- Clitoris	Present	<u>Absent</u>
- Eggs	- Shell thick, hard	Shell thin & fragile.
- Newly hatched	Procoelal, soft dependent	Altricial, helpless
- Young	on <u>parents</u>	depends on <u>parents</u>