

THE SKELETAL SYSTEM OF BIRDS I.

The birds' bones have adapted to a flying lifestyle. Some of their bones have **no marrow**, but **air sacs are packed into the hollow bones**, making the bird even lighter. The pneumatic bones have thin rod-like structures that prevent the bones from collapsing.

There are also fewer bones, and **some bones are fused together**.

- **Cornu metatarsi**: fusion of metacarpi and carpal ossa.
- Fused **metatarsi ossa**.
- The **fourchette** formed by the fusion of the clavicles
- **Coccyx** is the ossification of the last few caudal vertebrae.

In birds, elbow and wrist joints move in only one plane.

With the exception of flightless birds, birds possess carina.

The spinal column is divided into five vertebral segments:

- cervical vertebrae
- dorsal vertebrae
- **synsacrum**: fusion of the dorsal, lumbar and sacroiliac vertebrae, which is a single bone that also fuses with the hip bone.
- coccyx vertebrae
- **coccyx**: the last few tail vertebrae fuse into a single ossification. It supports the tail feathers and muscles.

Processus coracoideus, one of the strongest bones, which is part of the shoulder bone. Thus helping the flight.

The bird's **skull** consists of three main bones: the closed skull, which protects the brain, and the lower and upper jaw bones. The two large eye sockets are separated by a bony septum. Birds can move the upper jawbone, not the lower. The skull is connected to the first cervical vertebra by only one articular eminence. The structure and shape of the skull varies from species to species.

