



AVIAN VERTEBRA

Avian Vertebra

Overall Functions

- Lightweight – Adapted for flight
- Limited movement of vertebral column prevents loss of energy during flight

Organization of Vertebra

- 1** • **Cervical Region:**
 - 8-25 vertebra
 - Very flexible; most birds can turn their heads up to 180°
 - Functions:
 - Acts as a shock absorber
 - Aids in the reaching for food on the ground
 - Aids in the adjustment of the center of gravity; shifting from standing to flight positions
- 2** • **Dorsal Region:** similar to the thoracic region in mammals
 - 6-10 fused vertebra
 - Function:
 - Attachment for ribs
- 3** • **Synsacrum:** similar to the sacrum in mammals
 - Unique feature to birds
 - 10-22 fused lumbar, sacral and first few caudal vertebra
 - Function:
 - Fused to pelvis to provide support for bipedal motion
- 4** • **Caudal Region:** similar to the coccyx in mammals
 - 5-10 vertebra
 - Function:
 - Control of feather movement during flight
- 5** • **Pygostyle:**
 - 4-7 fused vertebra
 - Functions:
 - Attachment for feathers
 - Locomotion
 - Behavior adaptations (i.e. mating “dances”)

