

# Raptor Anatomy & Physiology

Chaiyan Kasorndorkbua, DVM, PhD

Thai Raptor Group  
Faculty of Veterinary Medicine  
Kasetsart University  
Thailand

# Raptors as Birds of Prey

- Raptors feed on other species of prey
- Naturally equipped for hunting and terminating lives
  - Hooked bill
  - Strong and sharp talons
  - Agile in flight

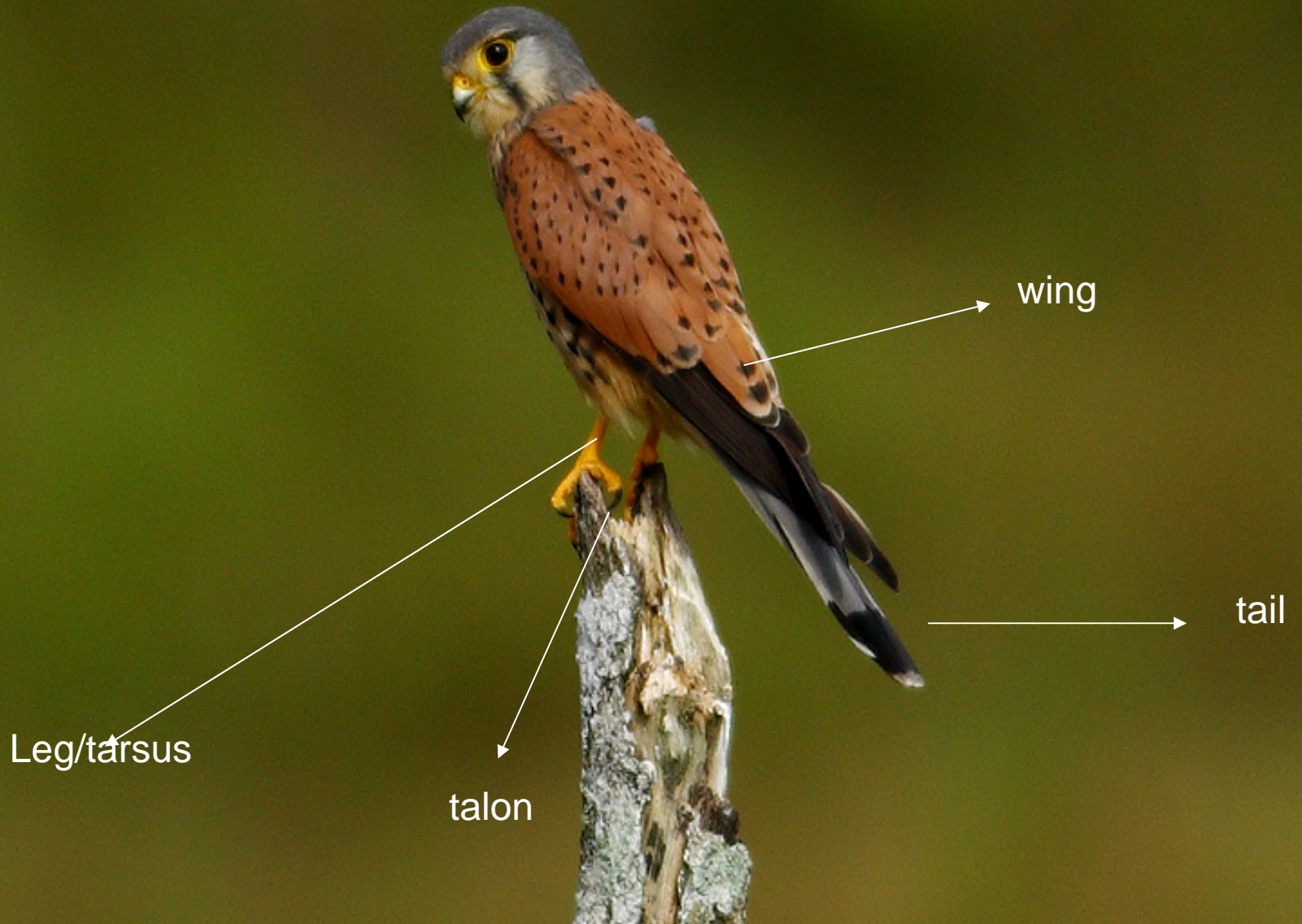
Wallace's Hawk Eagle *Nisaetus nanus*

Crest

Bill



Common Kestrel *Falco tinnunculus*





**Skull of Eastern Marsh Harrier**

# Non-raptor for Comparison

Bill: Bar-tailed Godwit



Bill: Eurasian Curlew



Feet: Terex Sandpiper



# Feathers

- Flight feathers
  - Primaries
  - Secondaries
  - Tail (aka rectrix)
- Body feathers
  - Head, wing coverts, chest, belly, etc.

Steppe Eagle *Aquila nipalensis*







Grey-faced Buzzard *Butastur indicus*



Rufous-winged Buzzard *Butastur liventer*

# Flight Physiology

- To be able to fly and maneuver for hunting, raptors need to decrease body weight by several adaptations
  - Fuse and air-filled bones to reduce weight
  - Multiple air sacs in the body
  - Rapid and effective digestion ability
    - Due to strong acidic condition in stomach

# Digestive tract of Barn Owl *Tyto alba*



# Pellets of Harriers

Vet. Path. KU.CK.

