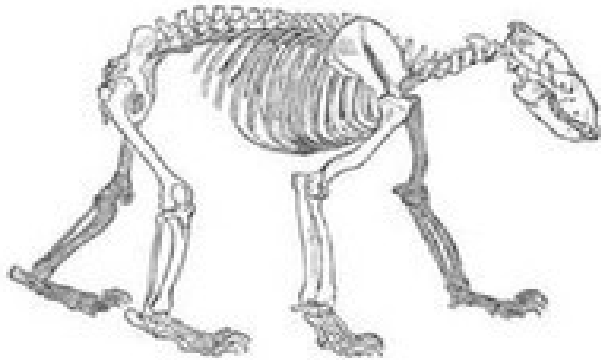


# Skeletal System

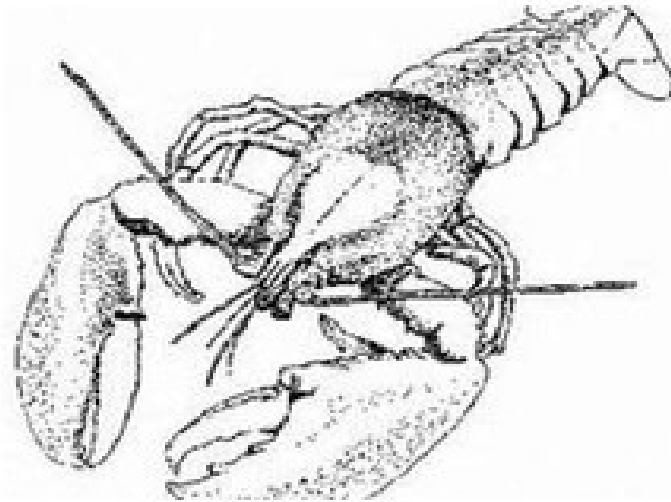


# Endoskeleton



The endoskeleton of a bear.

# Exoskeleton



The exoskeleton of a lobster.



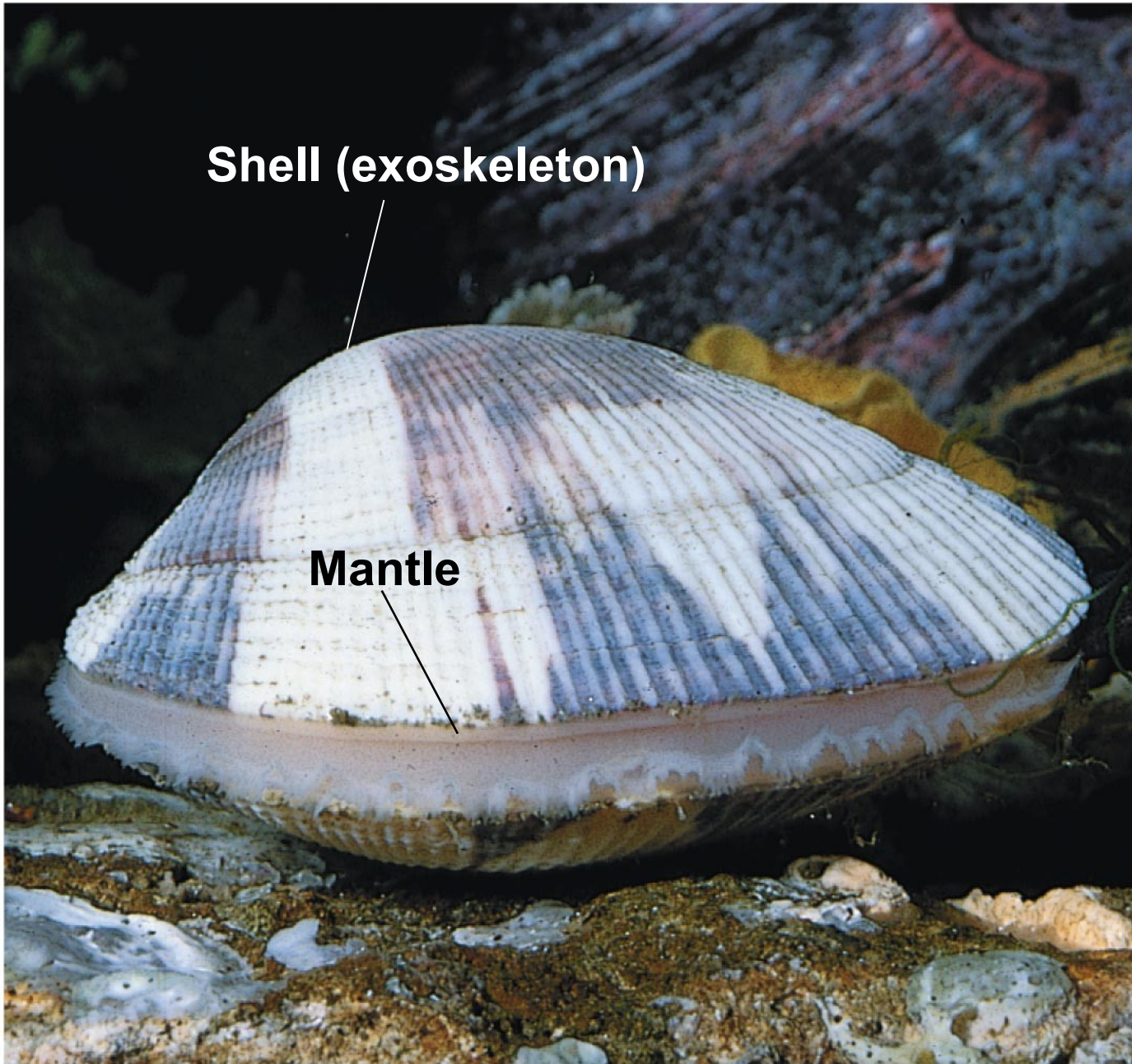
The hydroskeleton of a jellyfish.



## • **Exoskeleton**

- Rigid, external covering with muscles attached at inner surface
- Arthropod chitin exoskeleton
  - Thin and flexible at joints
  - Secreted by living cells
  - Must be molted periodically, leaving the animal unprotected
- Mollusc calcium carbonate exoskeleton
  - Enlarges by adding to outer edge



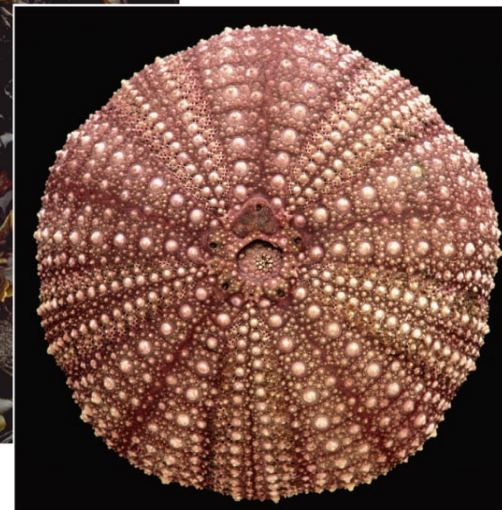
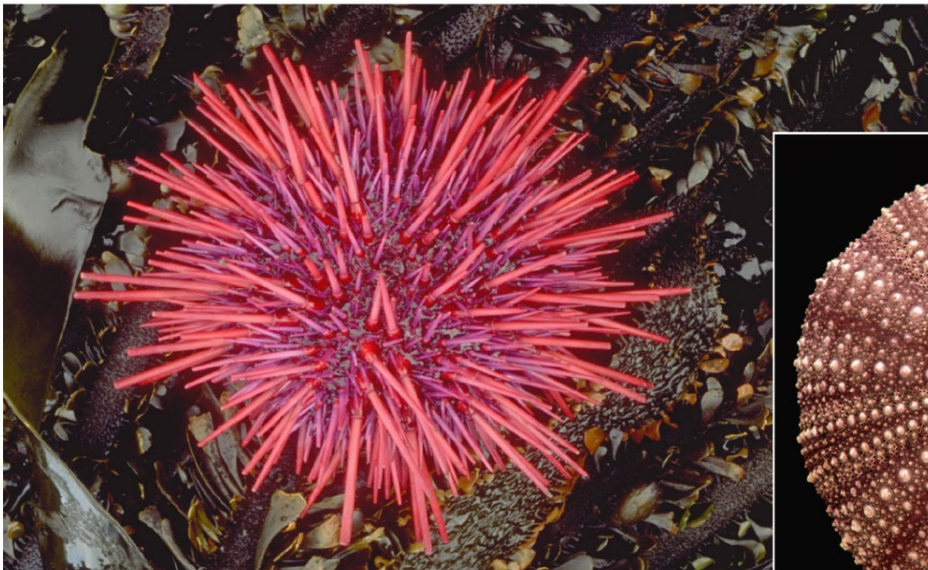


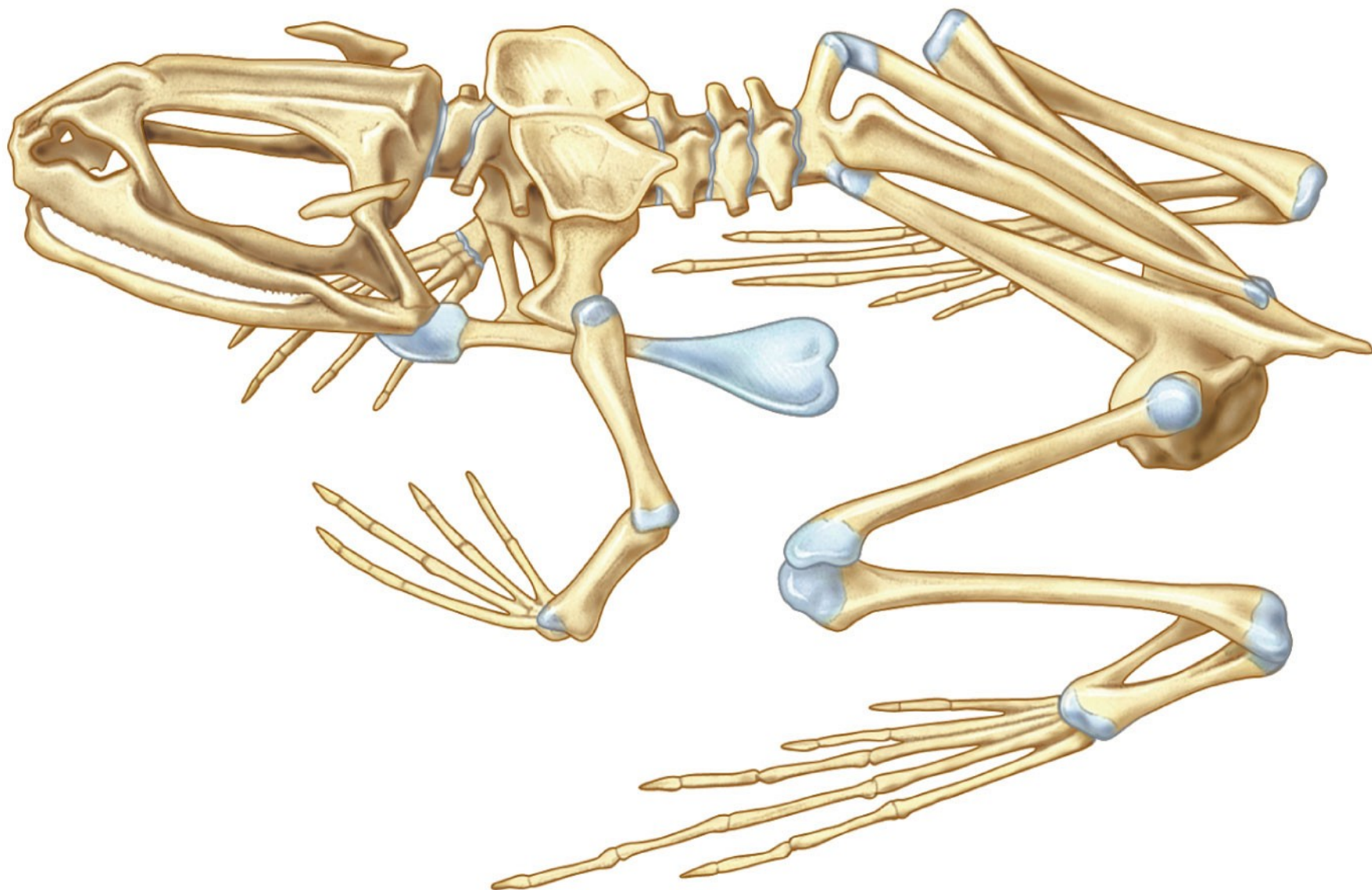
**Shell (exoskeleton)**

**Mantle**

- **Endoskeleton**

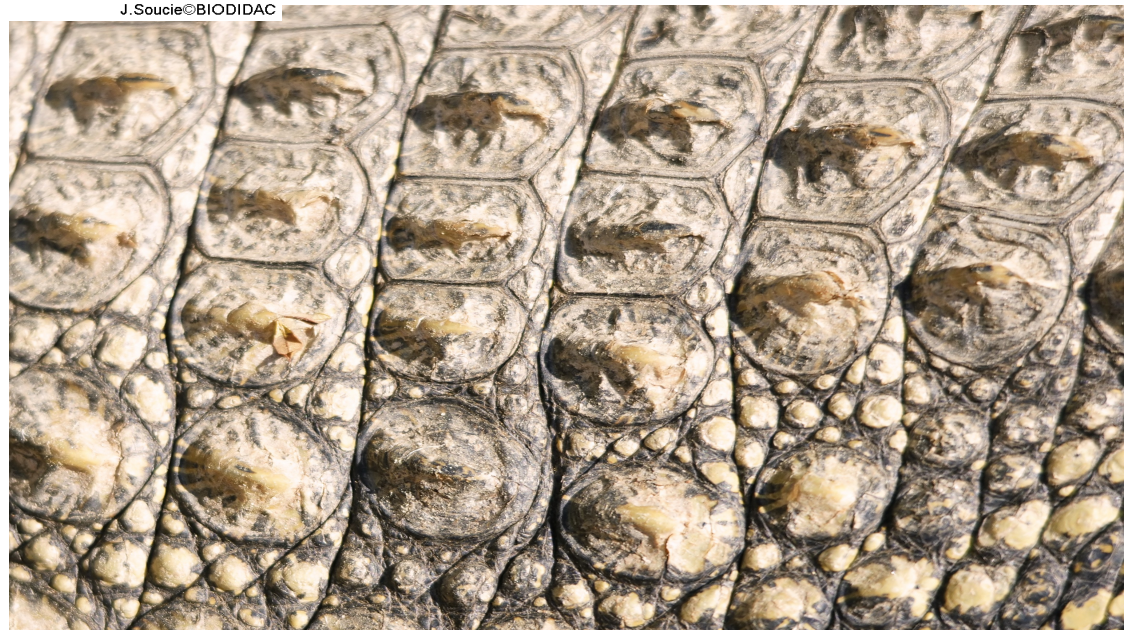
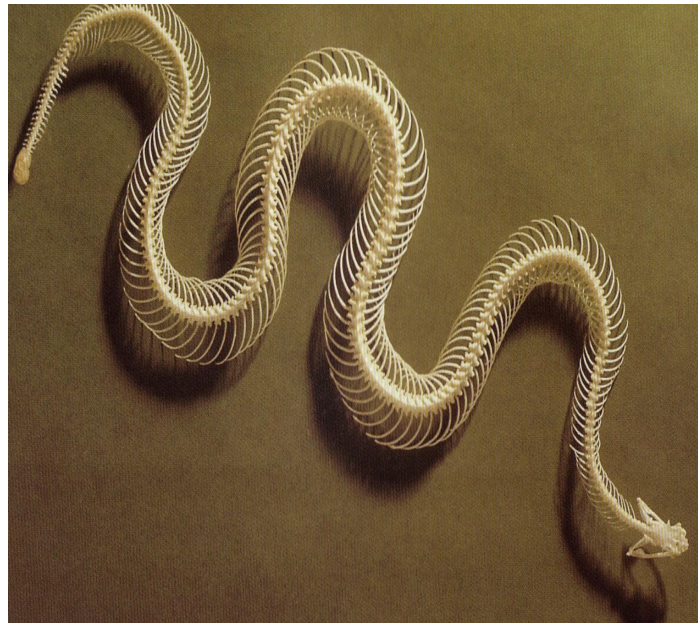
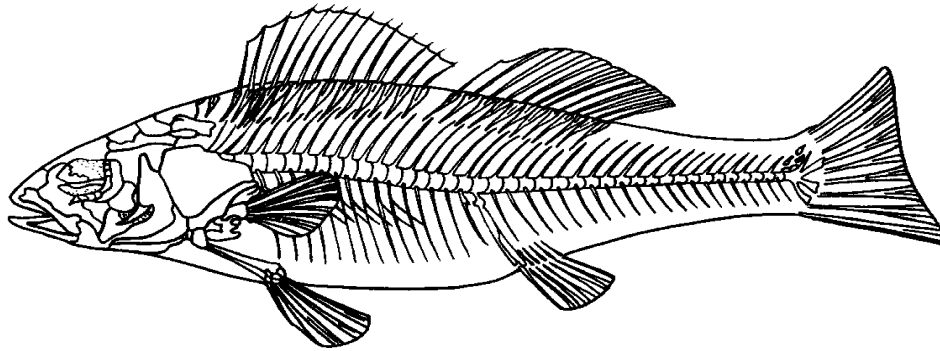
- Hard or leathery supporting elements situated among the soft tissues
- Vertebrate skeleton consists of cartilage or combination of cartilage and bone





# Skin Skeleton

## Inner Skeleton

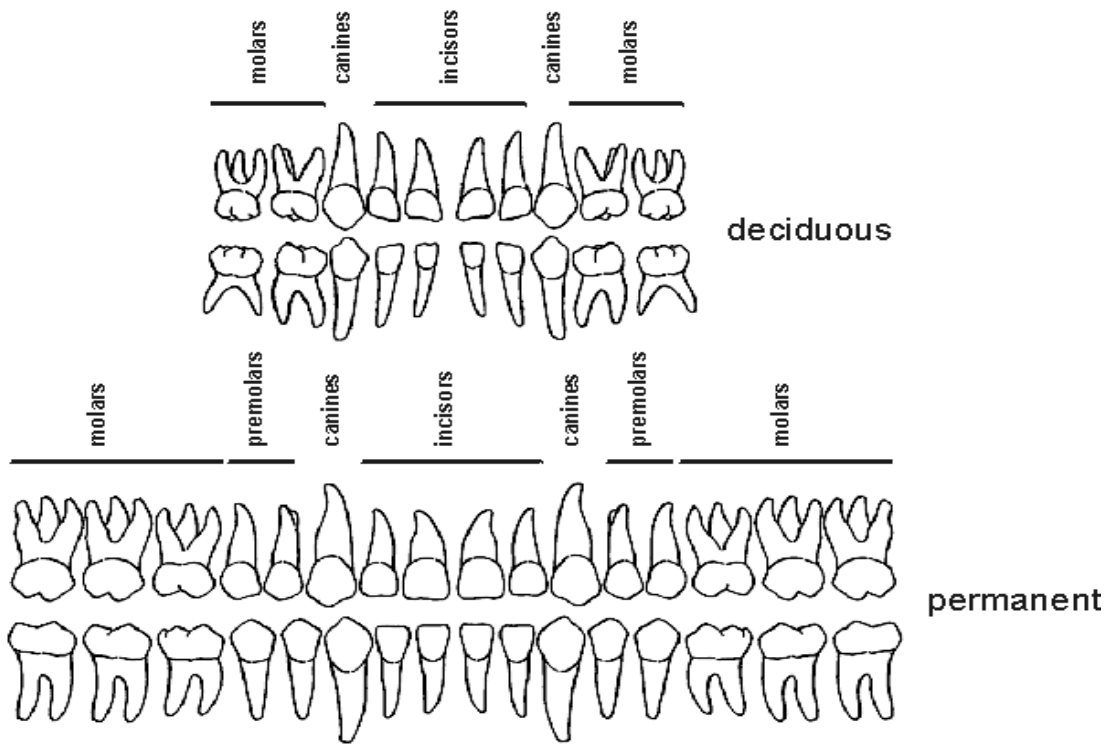
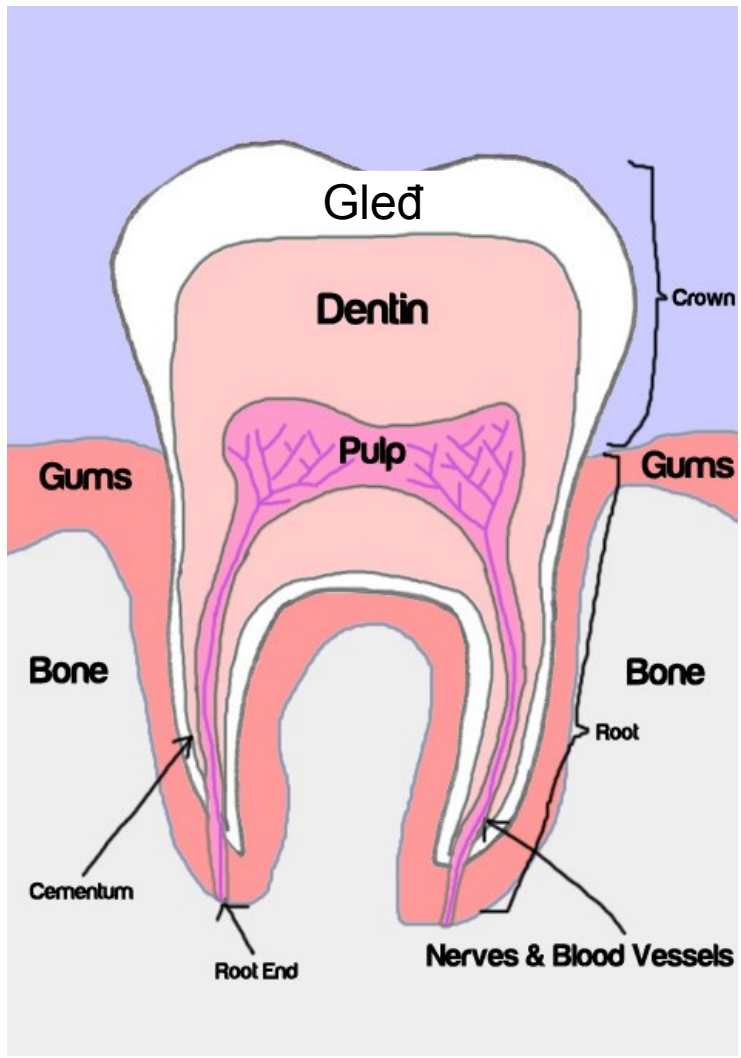




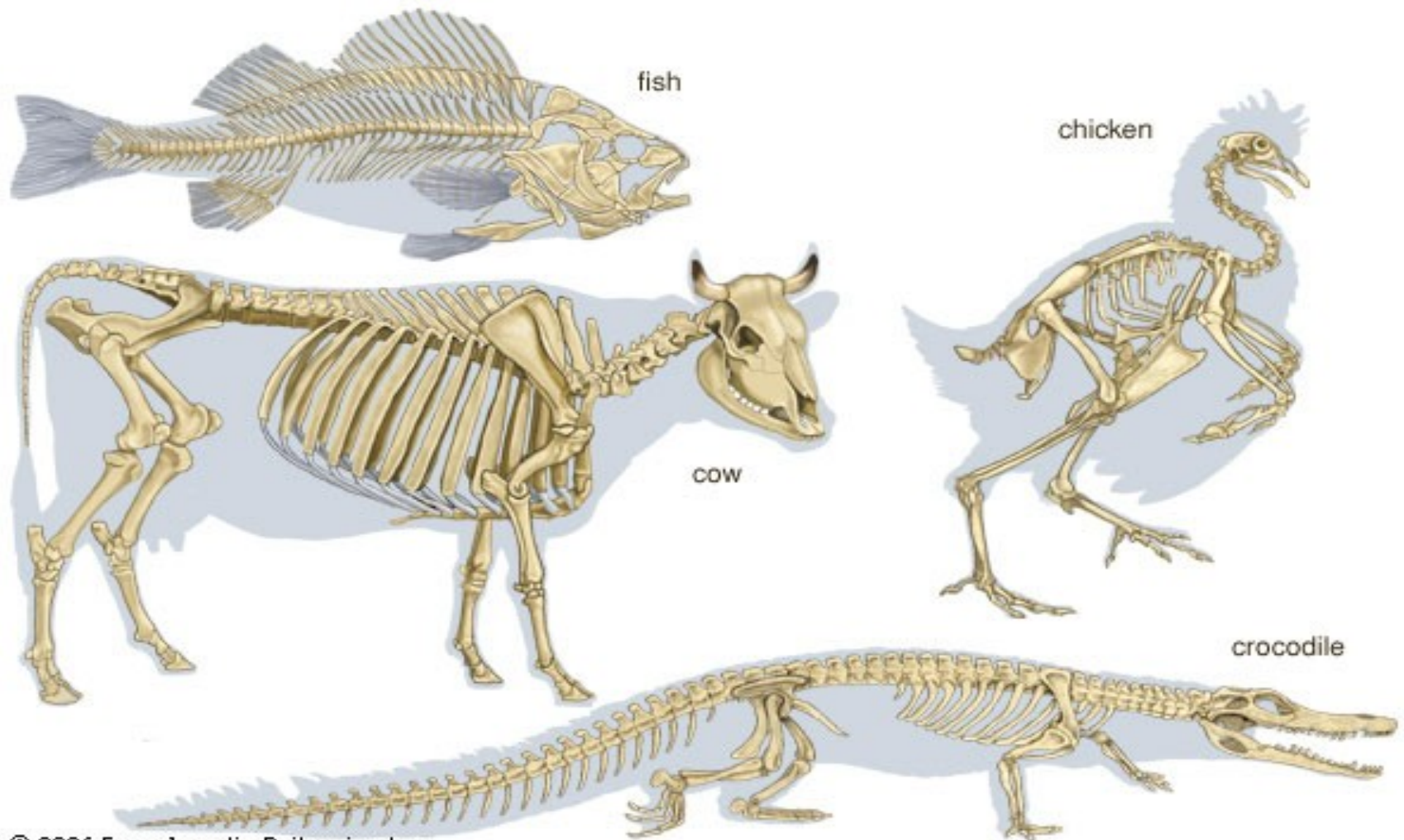
# Skin Skeleton



# Teeth



# Inner Skeleton



# Skeletal System

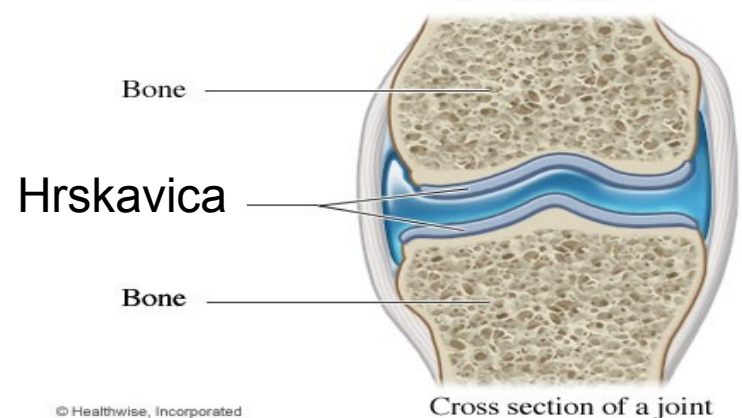
-vertebrata

## ■ Function

- Provides frame and support for all systems and organs.

## ■ Cartilage

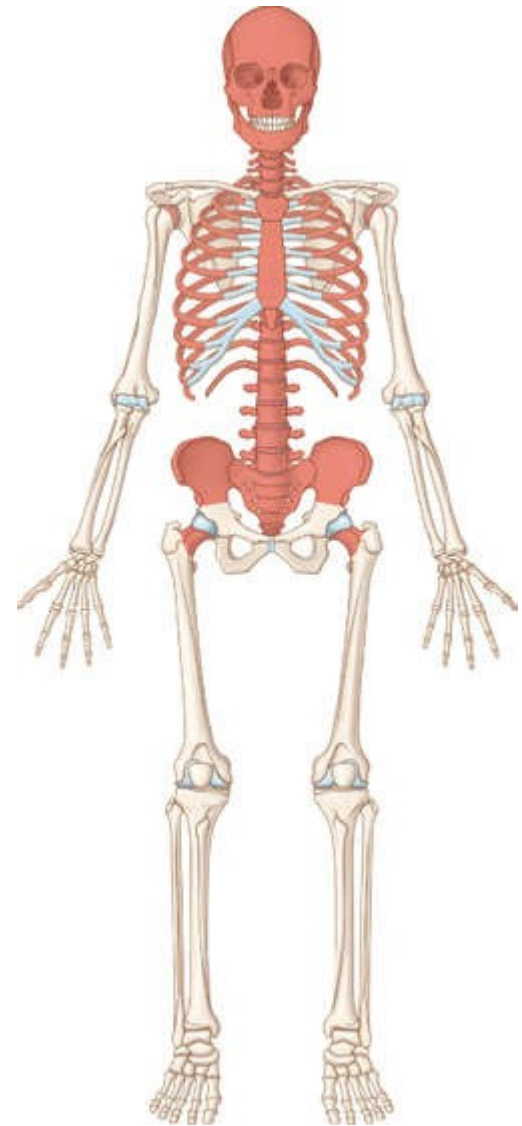
- Flexible tissues that is not as hard as bone



# Skeletal System

## ■ Bone

- Attach muscles
- Means of movement
- Protect internal organs
- Storage of minerals



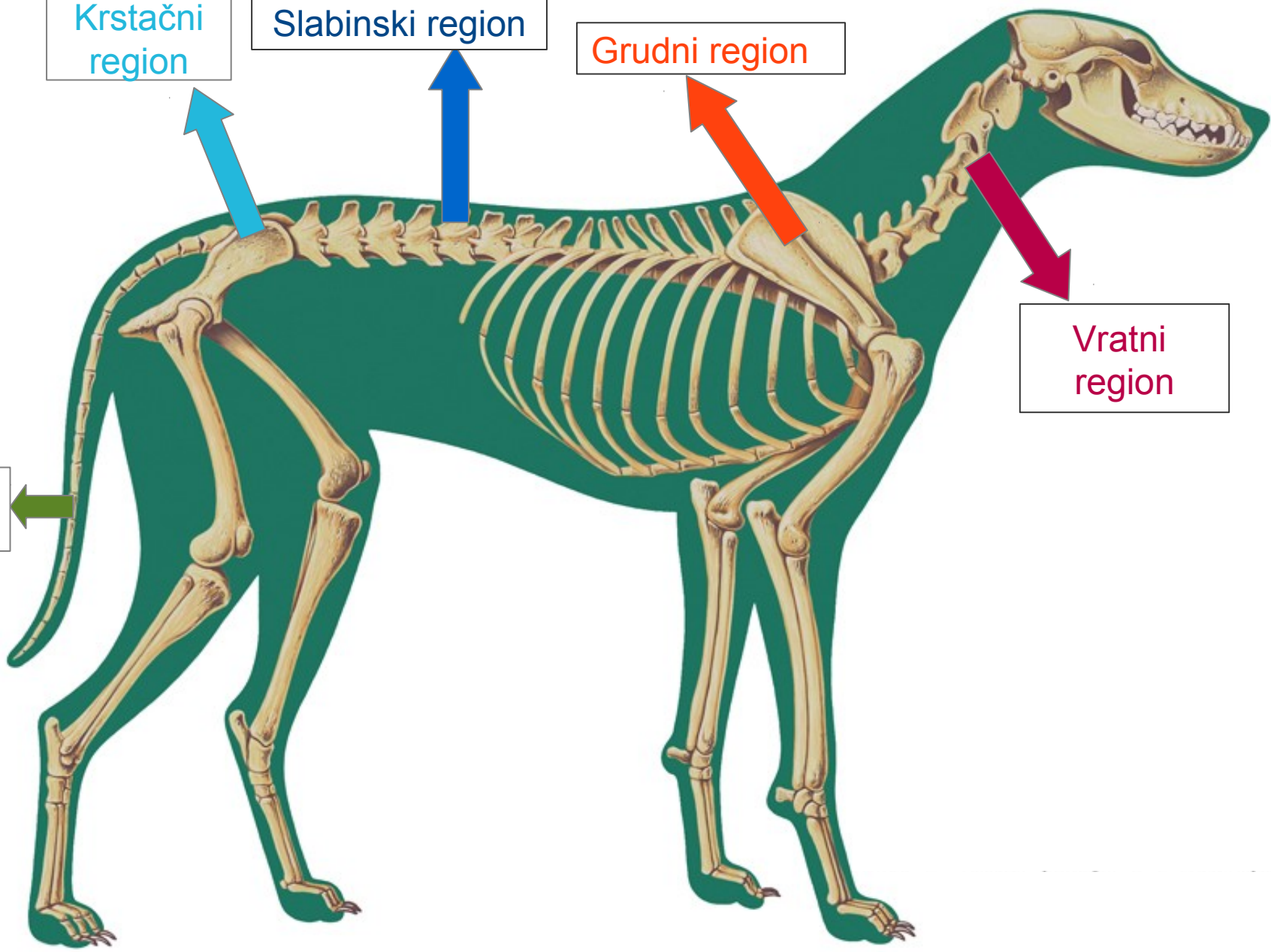
Krstačni region

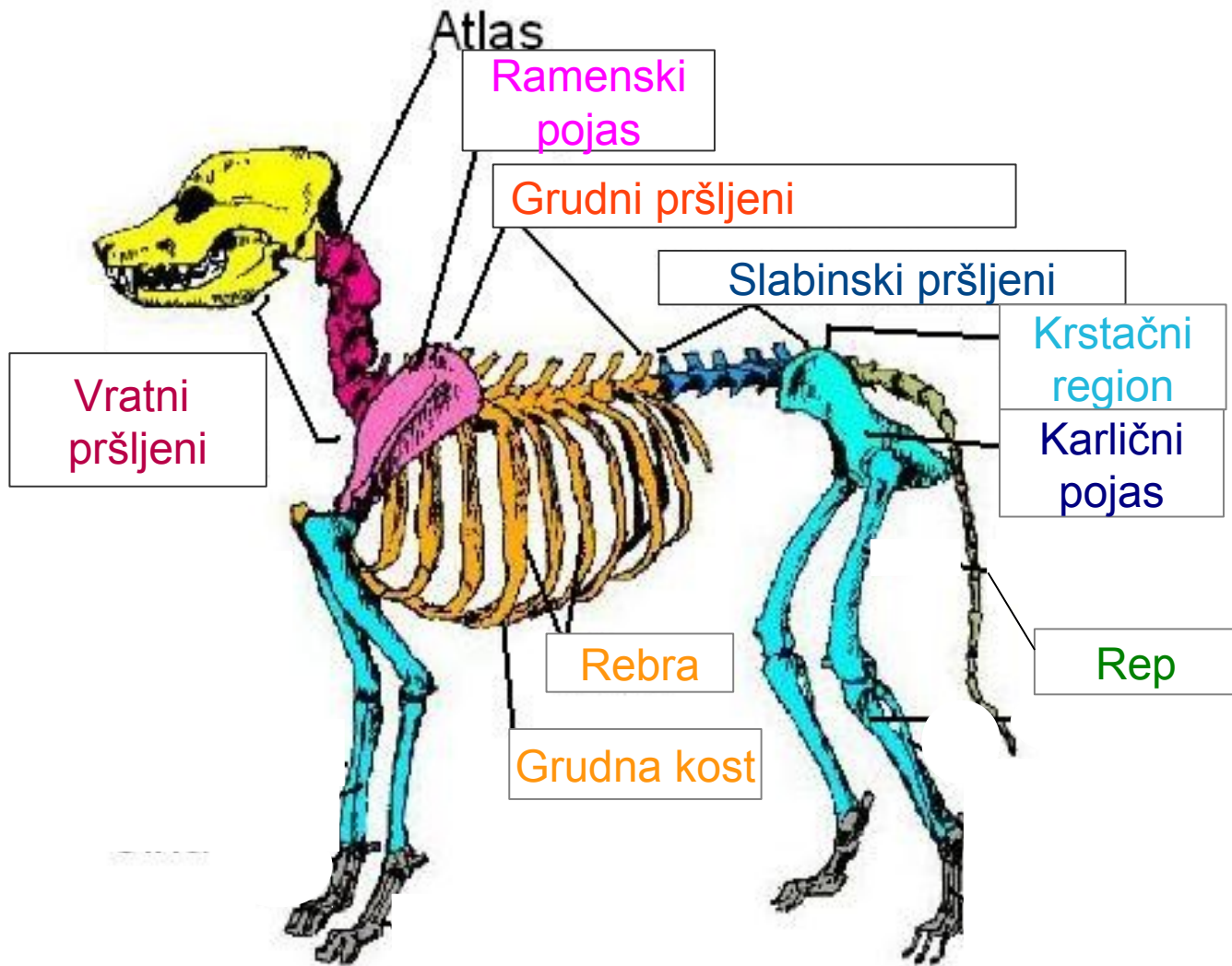
Slabinski region

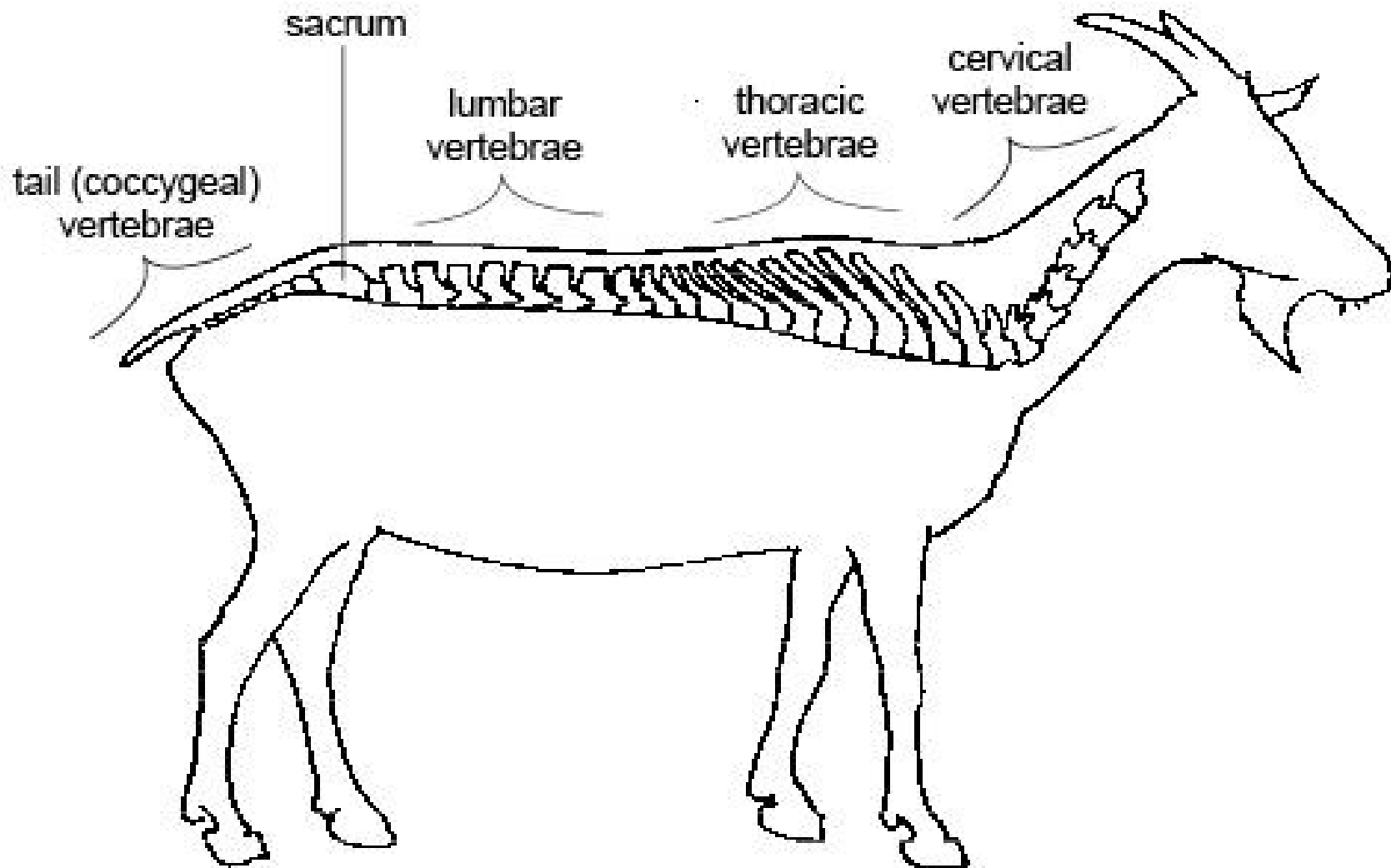
Grudni region

Vratni region

Repni region

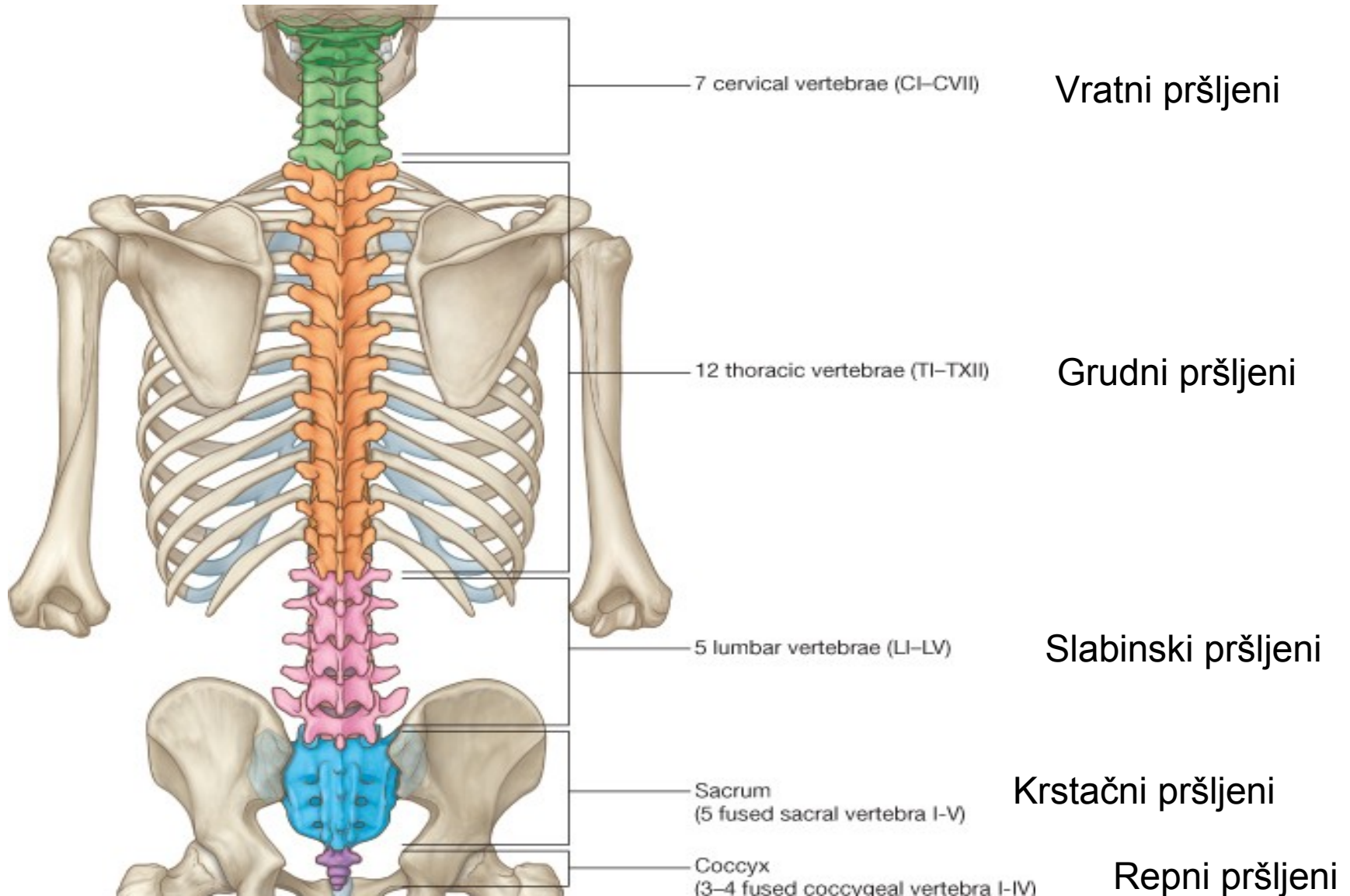


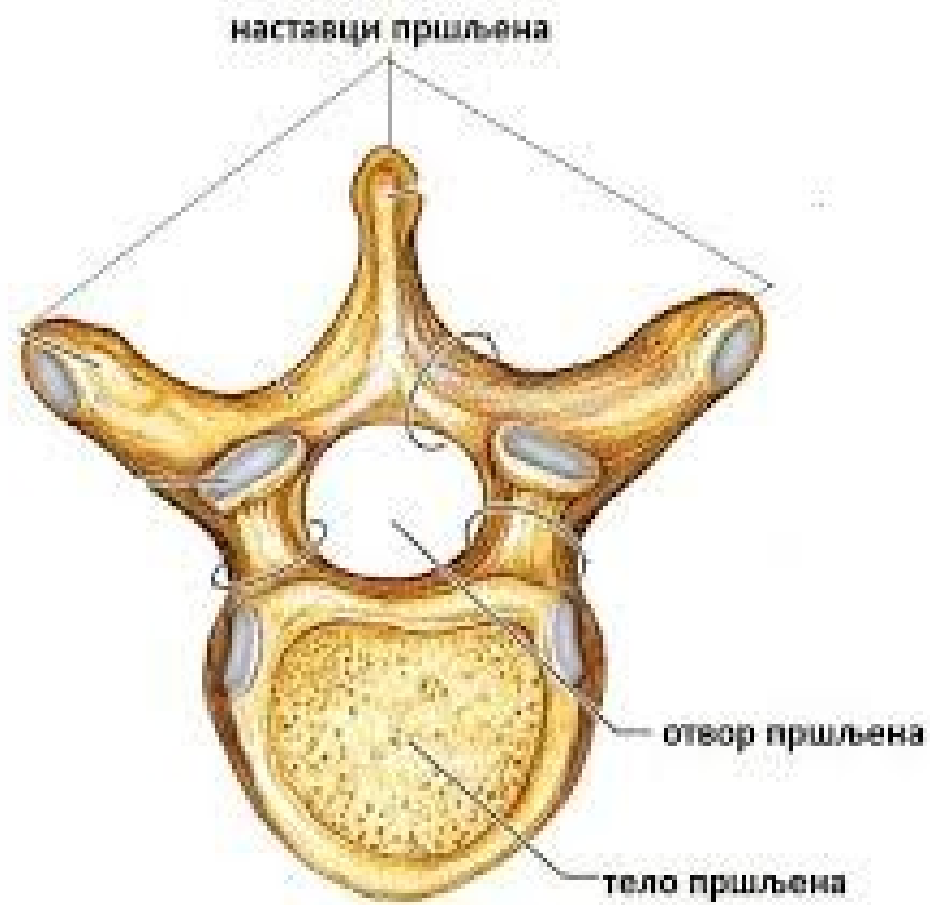






# Vertebral Column





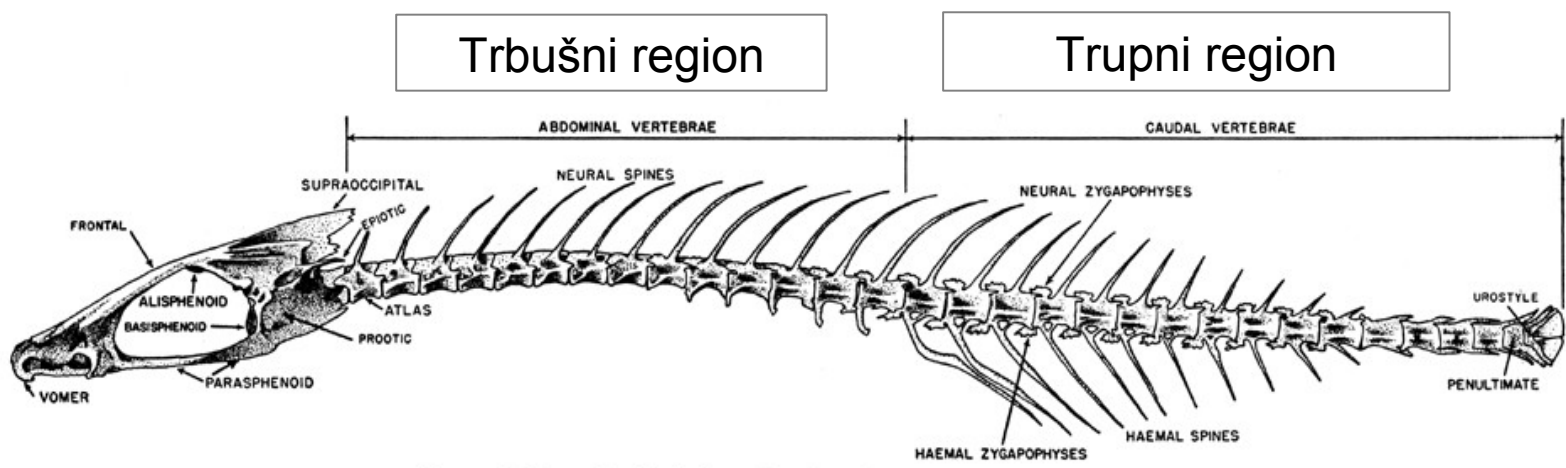
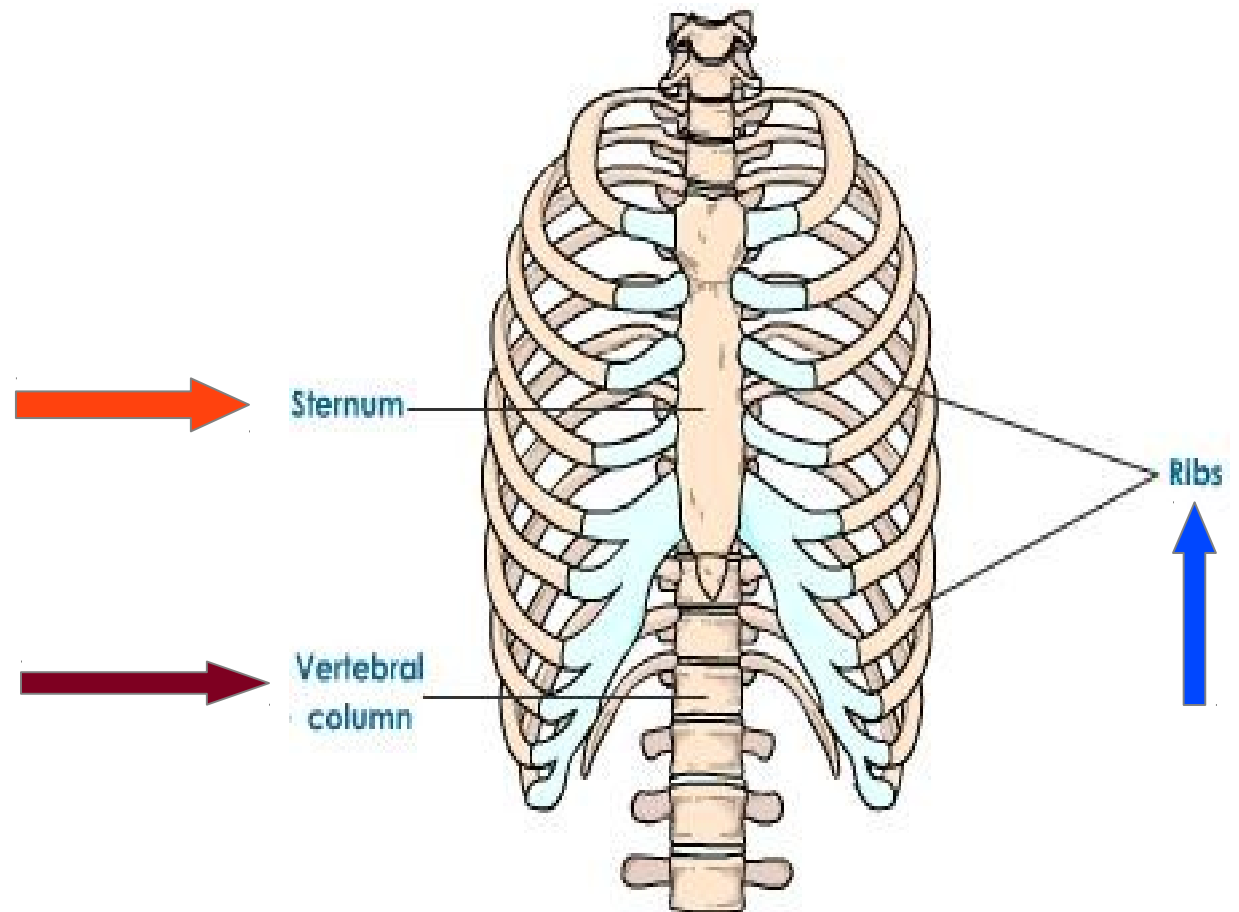


FIGURE 2. Parts of a fish skeleton. Drawing of a *Pneumatophorus diego* skeleton

## Grudni koš

- rebra,
- leđni deo kičmenice i
- grudna kost



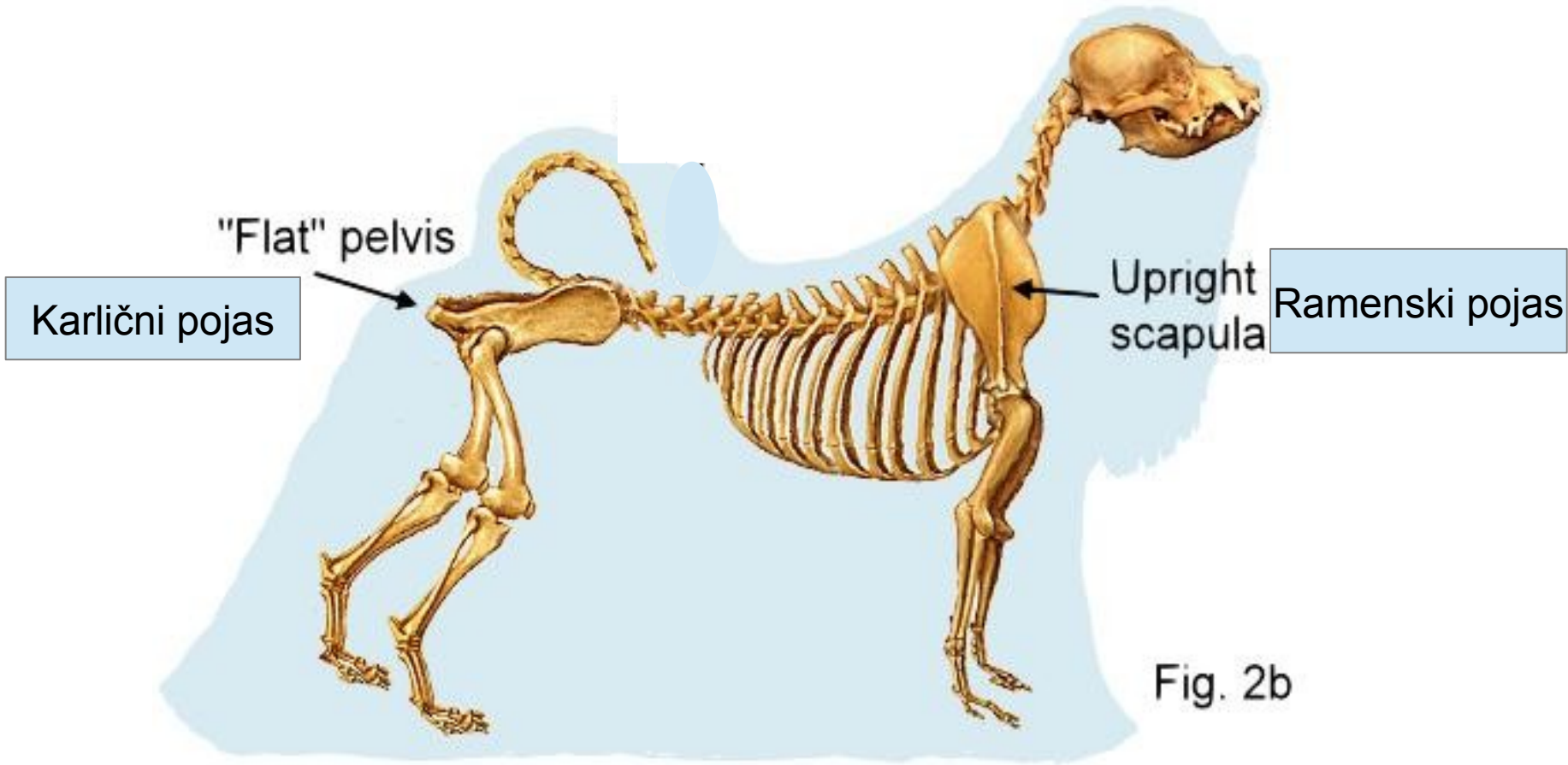
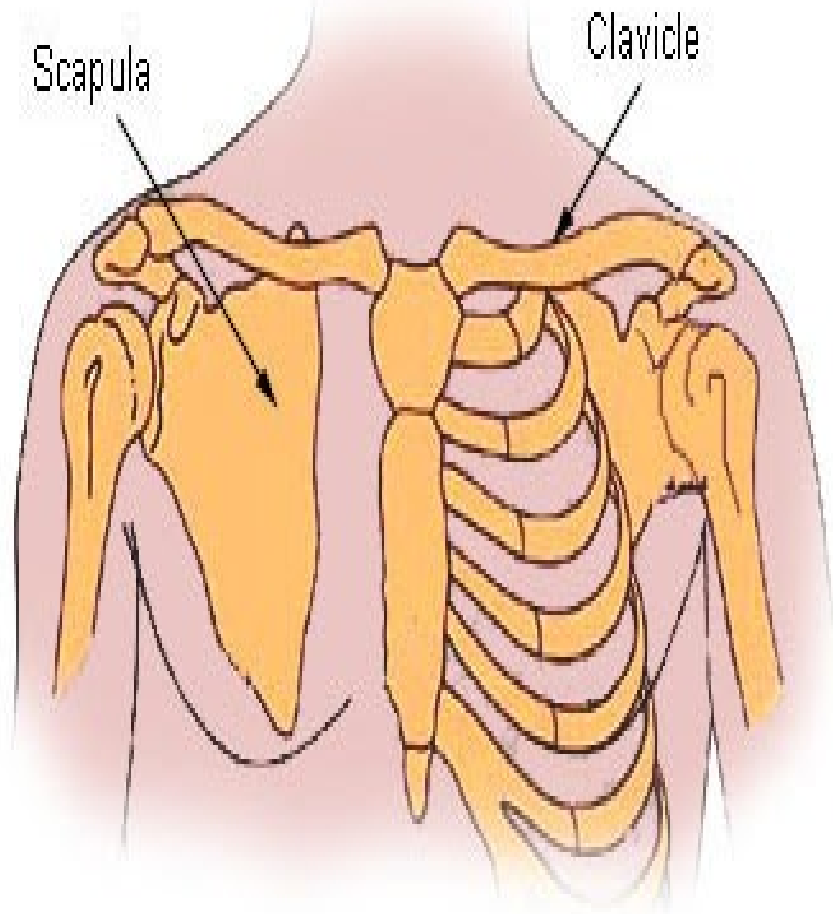
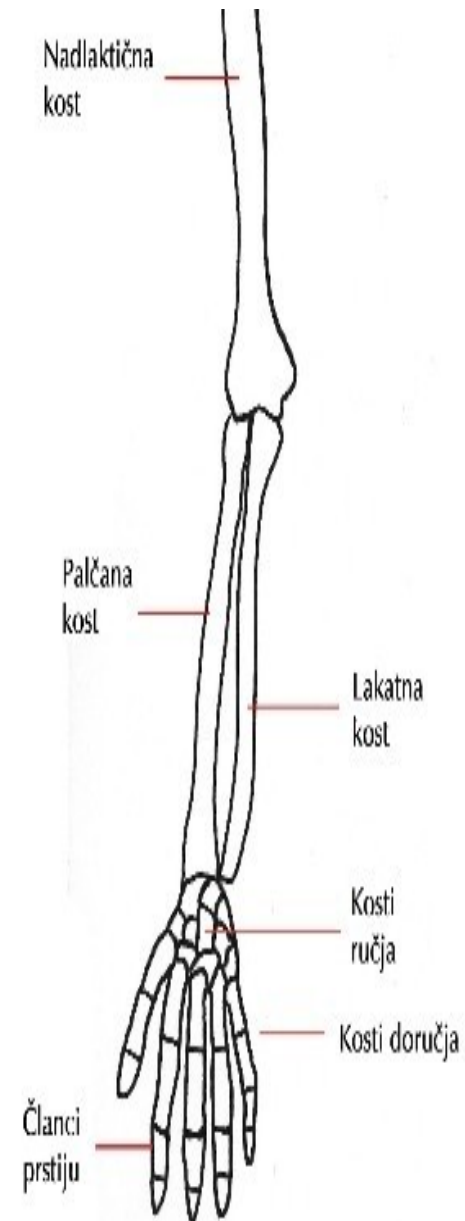


Fig. 2b

# Ramenski pojas



## Pectoral Girdles

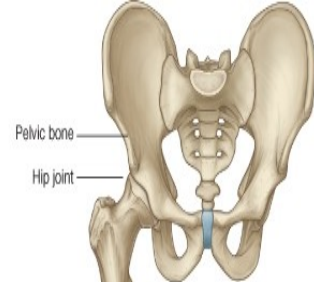


- **Karlični pojas** (3 parne kosti-srasle u karlicu)

- Noge ( natkolenice, potkolenice i stopala)

- Zglob kuka

- Koleno



Butna kost

Femur

Listnjača

Knee joint

Patella

Tibia

Fibula

Golenjača

Lateral malleolus

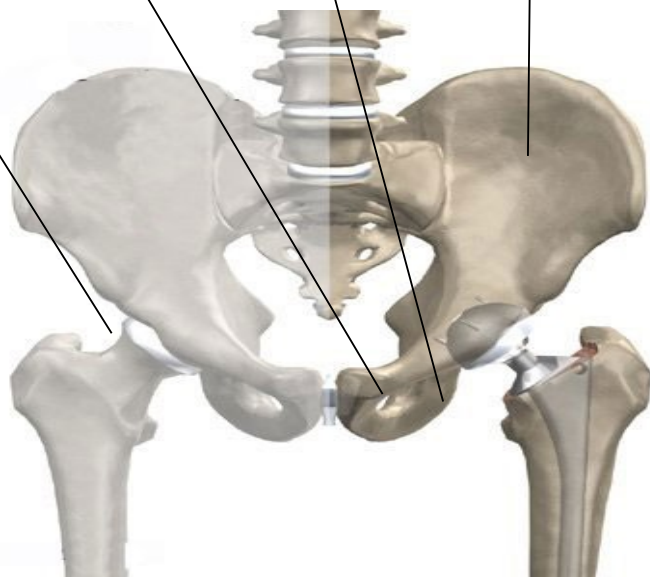
Medial malleolus

Ankle joint

Preponjača

Sednjača

Bedrenjača





# Skeletal System

## ■ Joints

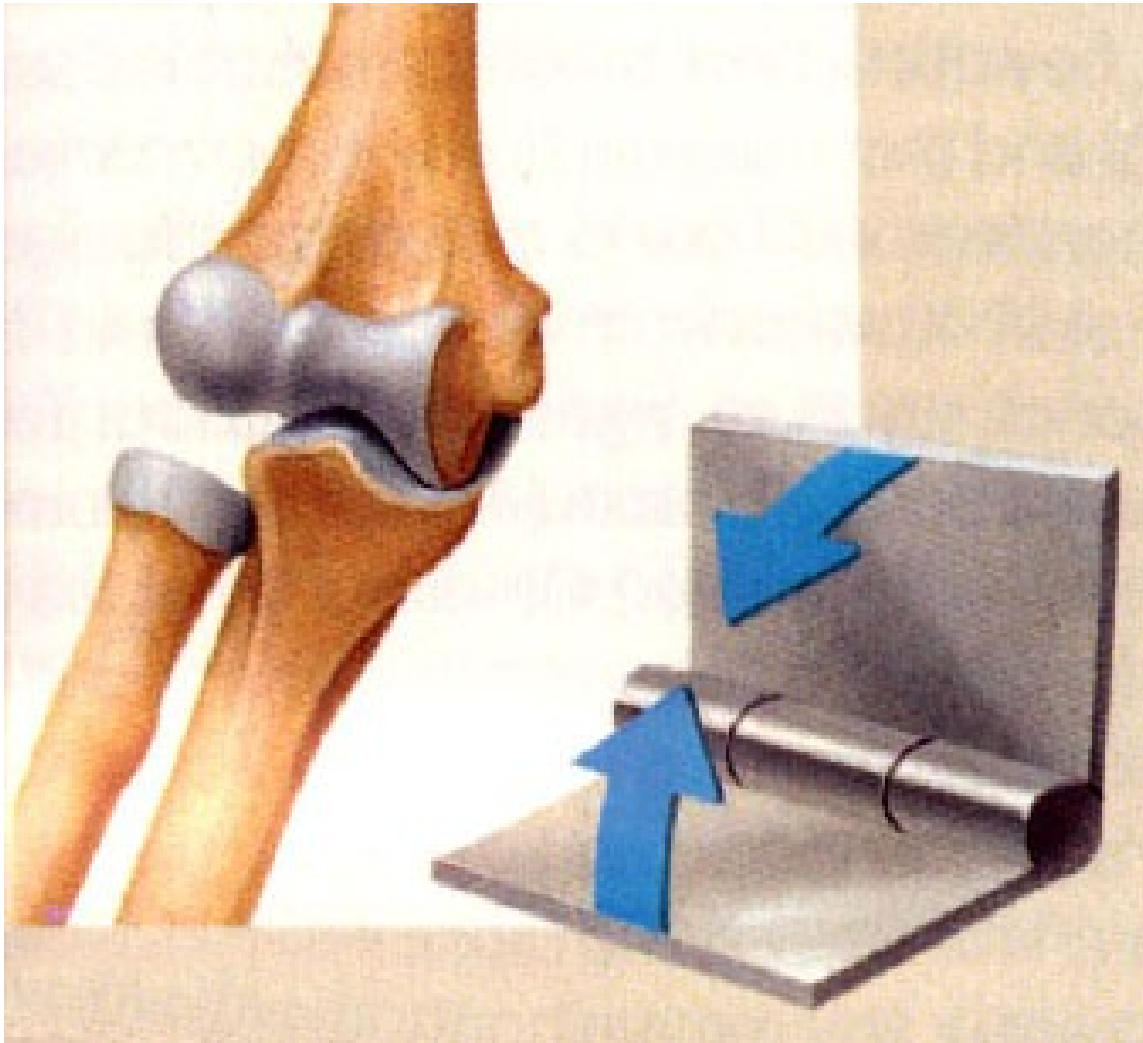
- Where different bones meet

## ■ Ligaments

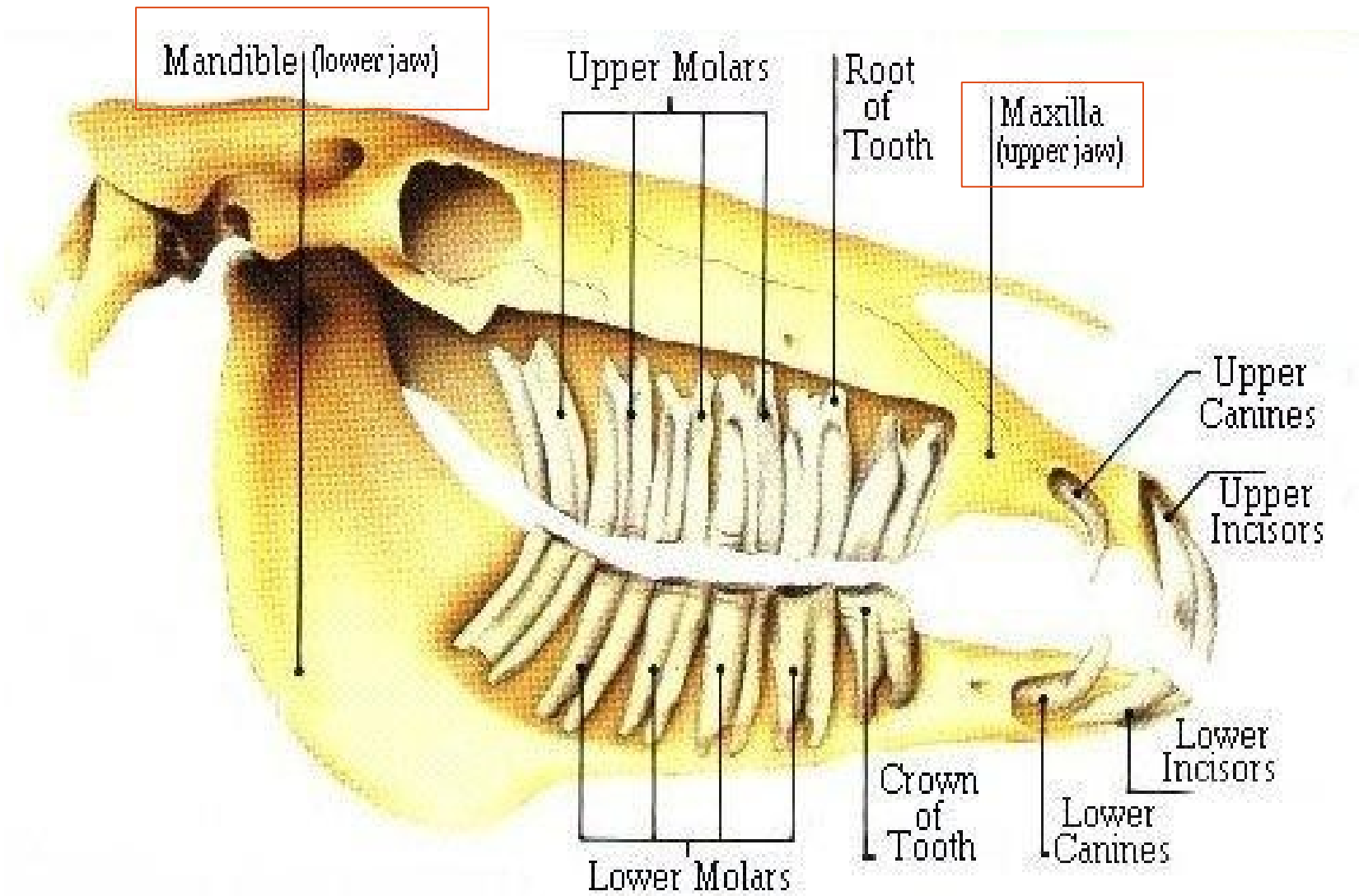
- Connect bones together; tough tissue



# Hinge Joint



# Skull



**Hvala na pažnji :)**

