

The Skeletal System

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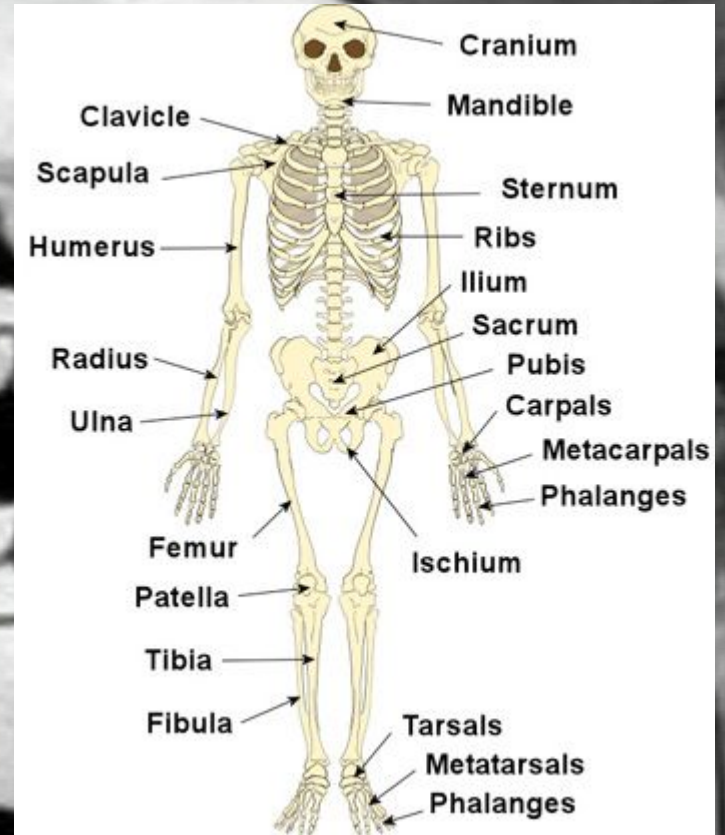
Introduction

The skeletal system is one of more unique systems in an organism's body. Some animals have similar skeletal systems like humans and frogs. Some have skeletal systems not made out of bones like sharks. Some even don't have skeletal systems like earthworms. Today we will go through the skeletal system of all 4 animals.



Humans

As humans evolved, their bones got lighter, they became more bipedal, got stronger jaws, and they got opposable thumbs. All of these things led to humans being able to do things like move easier, pick up things easier, and bite into harder stuff but also increase the risk of more injuries like bone fractures and back issues.



Earthworms

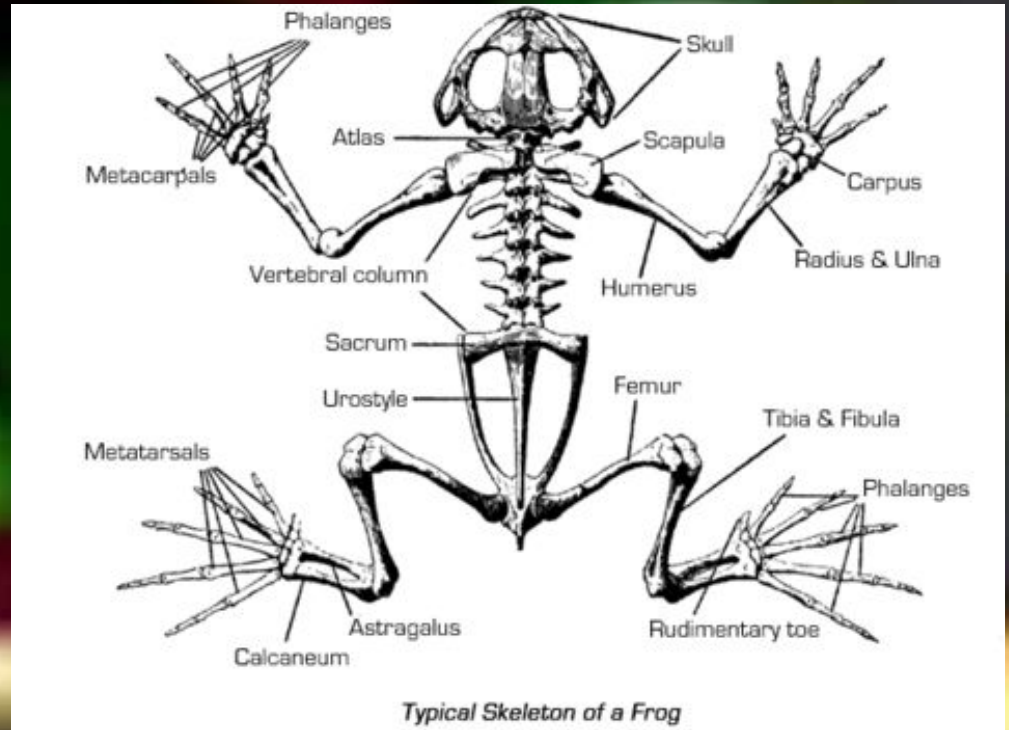
The earthworm skeletal system is not there yet the earthworm is able to move around as if it were a underwater snake. Its long thin body allows for it to be able to get through the dirt with ease.

Because of this, earthworms can get into the ground quickly to dodge predators like birds and frogs or get away from bad climate like rain and snow.



Frogs

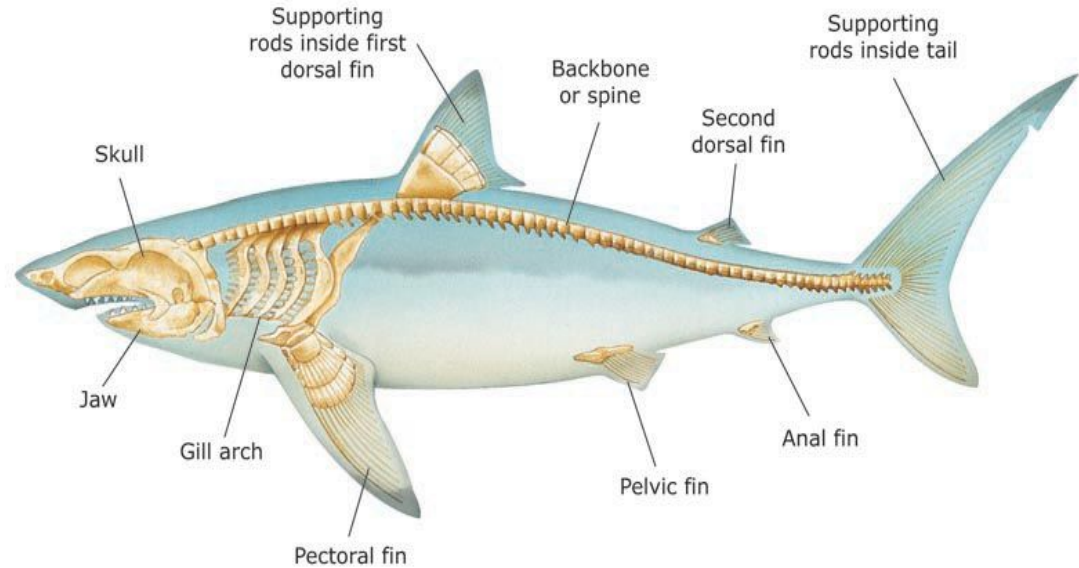
As time went on, the bones of frogs started to fuse together causing them to not have as many bones in their body. This made frogs lighter and faster as well as helped them jump farther. Because of this, frogs are able to get away from predators as well as chase their prey if needed.



Typical Skeleton of a Frog

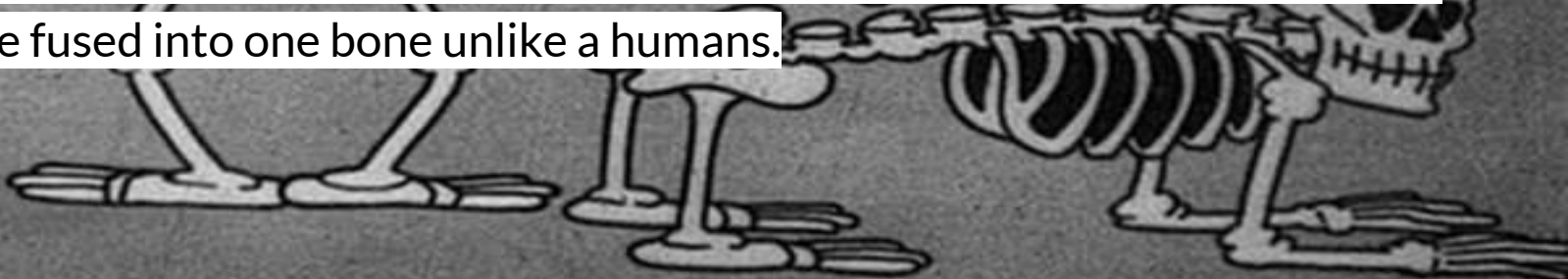
Sharks

Unlike most organisms, sharks are made up of cartilage which is much more flexible than bone. They're made of cartilage to allow them to keep swimming since they'll die if they stop. Since cartilage is more flexible and lighter than bone, sharks can move faster and make quick turns to chase prey. This also allows them to open up their jaw wider than most other organisms.



Comparison of organisms

While sharks, humans, and frogs all have skeletal systems, earthworms do not, making them the most flexible out of the 4 organisms. Unlike humans and frogs however, sharks are made cartilage which previously stated is more flexible than bone making them more flexible than those two. Humans and frogs have very similar skeletal systems which is why frogs are often dissected when it come to seeing what the human skeletal system looks like. Both humans and frogs have a femur, fibula, tibia, humerus, ulna, radius, and shoulder blades. However, the fibula and tibia are fused into one bone unlike a humans.



Cladogram



All organisms have a brain.

Sharks, frogs, and humans all have skeletal system.

Humans and frogs both have collarbones, shoulder blades, leg, etc.

Conclusion

How did your system change over time?- After researching, we've seen that all of these organism's skeletal system changed because they needed to get faster in either hunting their prey (like sharks and humans) and/or getting away from predators (like earthworms and frogs).

What did you learn: What we learned is that every skeletal system in an organism is different from another one's even if it's the slightest like in the case of the frog and human. Although their skeletal system is close to each other, the fusion of some of the frogs bones makes it different from a human's.

Citations



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