

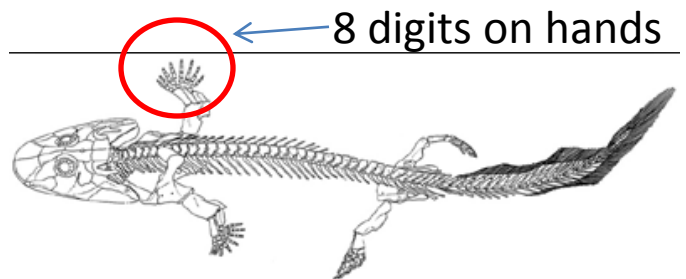
Amphibians

- Amphibians are the first four limbed vertebrates/tetrapods.
- Most today live their adult lives on land.
- Most live their first stage as fish-like forms using gills for respiration and evolved to air-breathing as they become adults.
- Most evolve lungs, but some use their skins as primary or secondary respiration surfaces.
- Amphibians are cold-blooded and are all fresh-water inhabitants.
- They require moisture, must keep skin moist.
- Earliest appearance of amphibians was in Devonian Period.
- Reproduction involves eggs that are laid in water.
- Most are predators that find food by sight.
- For defense they secrete a mucous that is slippery, distasteful and in some cases poisonous. Their bright distinctive color is a warning of this to predators. The more colorful, the more poisonous.

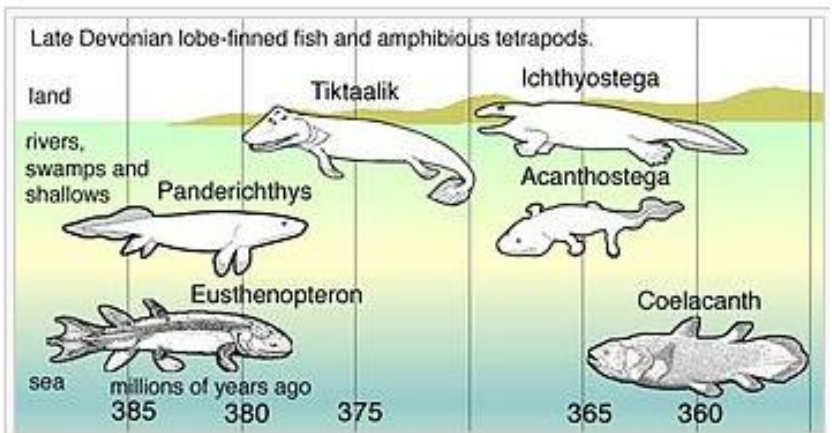
Tetrapod – four limbed vertebrate , mostly terrestrial

Class Amphibia

60. Genus *Acanthostega*

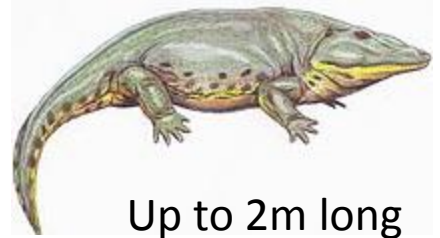


Amphibians (continued)



In Late Devonian vertebrate speciation, descendants of pelagic lobe-finned fish – like *Eusthenopteron* – exhibited a sequence of adaptations: **Panderichthys*, suited to muddy shallows; **Tiktaalik* with limb-like fins that could take it onto land; *Stem-tetrapods in weed-filled swamps, such as: ***Acanthostega* which had feet with eight digits, ***Ichthyostega* with limbs. Descendants also included pelagic lobe-finned fish such as *coelacanth* species.

Class Amphibia 61. Genus *Eryops*



Class Amphibia 62. Genus *Diplocaulus*



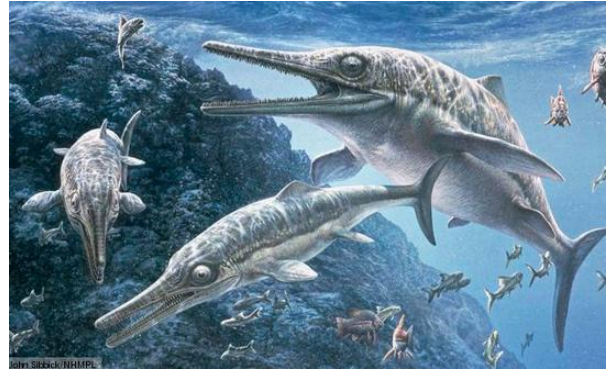
~ 1 m long

TRUE Reptiles (all extinct)

Class Reptilia

63. Order Ichthyosuria (Ichthyosaurs)

Large marine, Mesozoic reptiles



Class Reptilia

64. Family Mosasauridae (Mosasaurs)

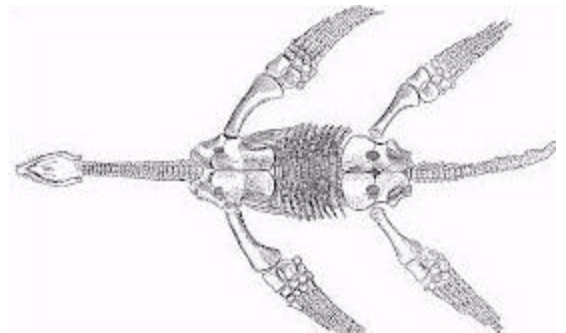
During the last 20 million years of the Cretaceous period with the extinction of ichthyosaurs and the decline of plesiosaurs, mosasaurs became the dominant marine predators.



Class Reptilia

65. Order Plesiosauria (Plesiosaurs)

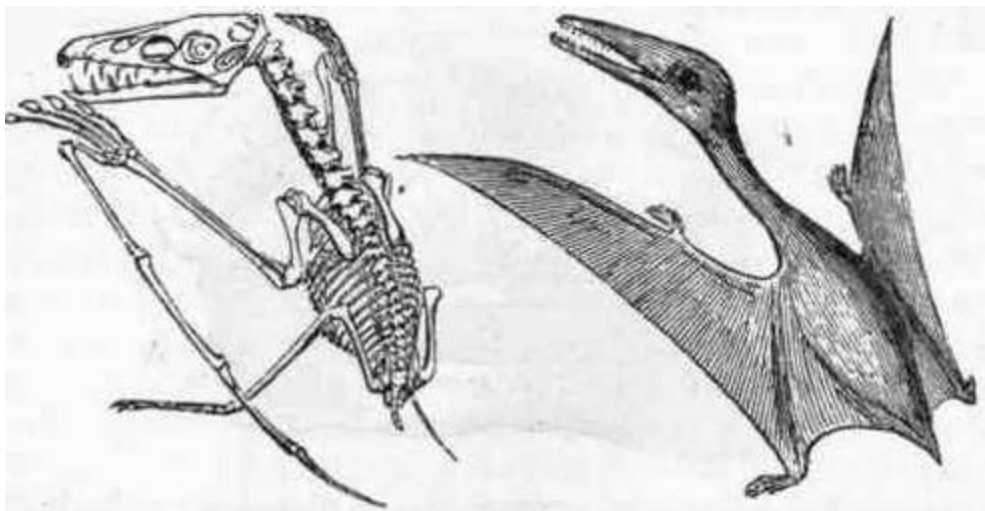
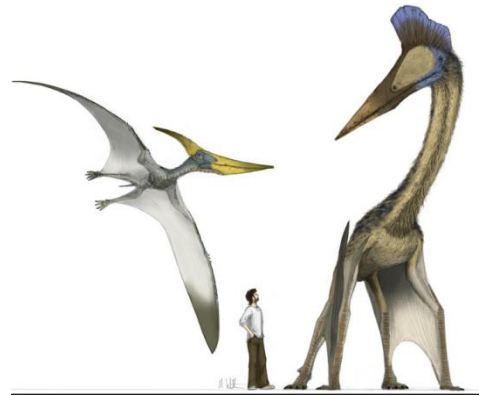
Long necked marine reptiles



Flying “Reptiles”

72. Order Pterosauria (Pterosaurs)

Late Triassic to End Cretaceous
earliest flying vertebrates



Note the root of “saur” in these swimming and flying reptiles.
Saur is Greek for lizard.