Albanerpetontidae

Mesozoic-Cenozoic salamander-like amphibians

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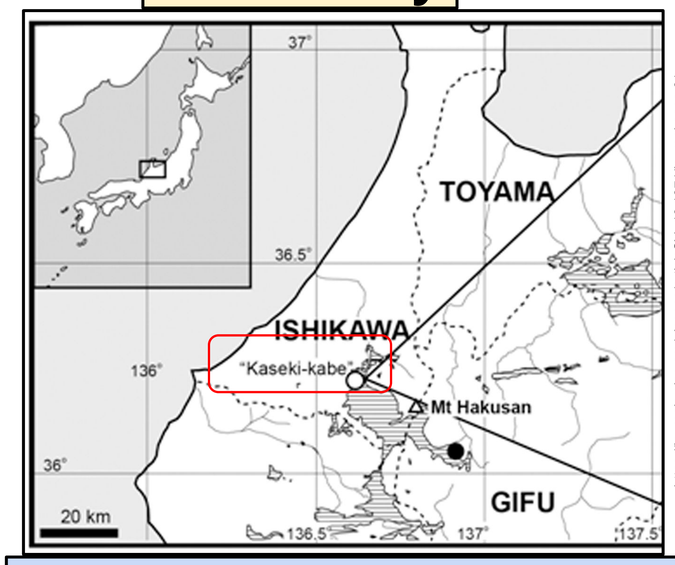
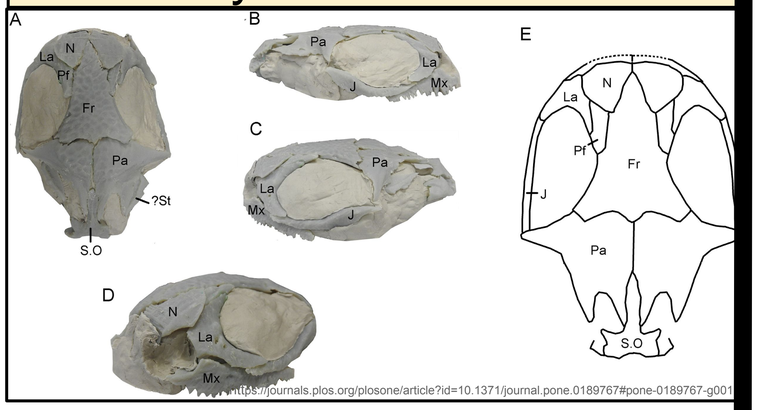
Discovery



https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0189767#pone-0189767-g001

-First record of Albanerpetontidae was found in East Asia, specifically Western Japan.
-In 1997, fossils were found on the "Kaseki-Kabe" fossil cliff.[3]

Model Clay Reconstruction of Skull



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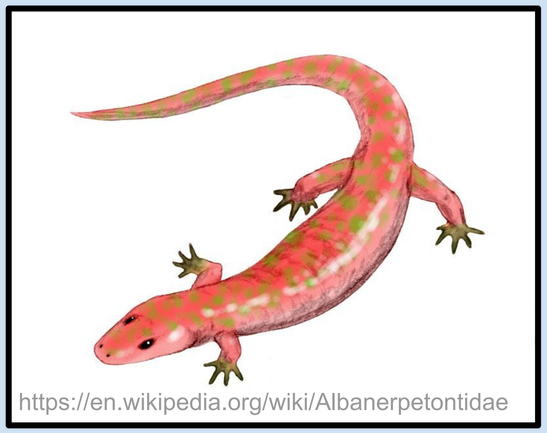
Methods of reconstruction:
-Only a small area of skull bone was exposed on the surface
-The Tokyo Metropolitan Industrial Technology Research Institute scanned the area using a CT scanner (Toscaner 30000 micro CN)
-Features like foramina, tooth tips, and fine edges were found.
-These parts were segmented out from scanned area & 3D printed (Objet350 Connex)
-Parts were pieced together using modeling clay to figure out the bone positions to reconstruct the skull[3]



https://en.wikipedia.org/wiki/Albanerpetontidae

Origins

Originated 160 million years ago from the Bathonian stage of the Middle Jurassic & lived until the beginning of the Pleistocene 2.13-2 million years ago[2]

Family

-Approximately 10-20 known species
-5 genera: Albanerpeton, Anoualerpeton, Celtedens, Shirerpeton & Wesserpeton

Common Misconception

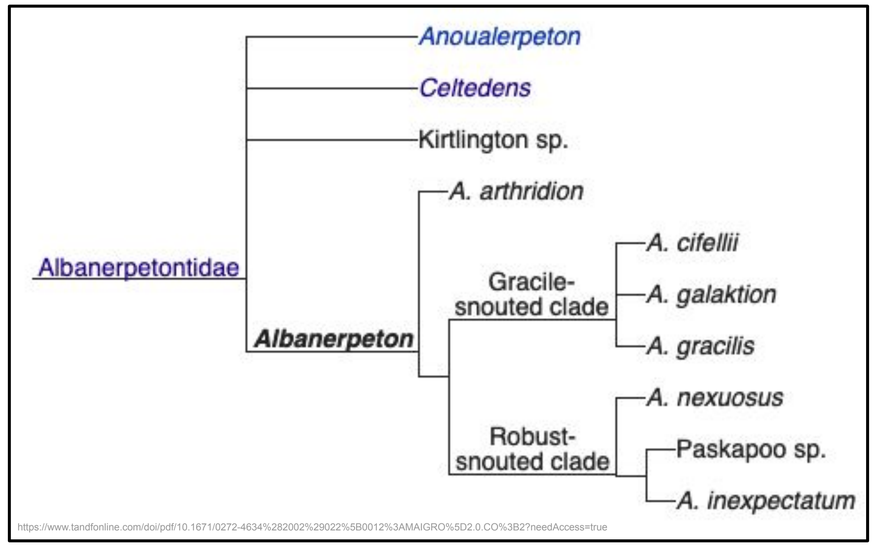
-The albanerpetontidae's small size and specific body parts lead people to believe they are salamanders, which they AREN'T
-Their skin was actually covered with bony scales, thus differentiating them from salamanders.

There are 3 living orders of amphibians:

Anura (frogs)	Caudata (salamanders)	Gymnophiona (caecilians)
✓	✓	✗

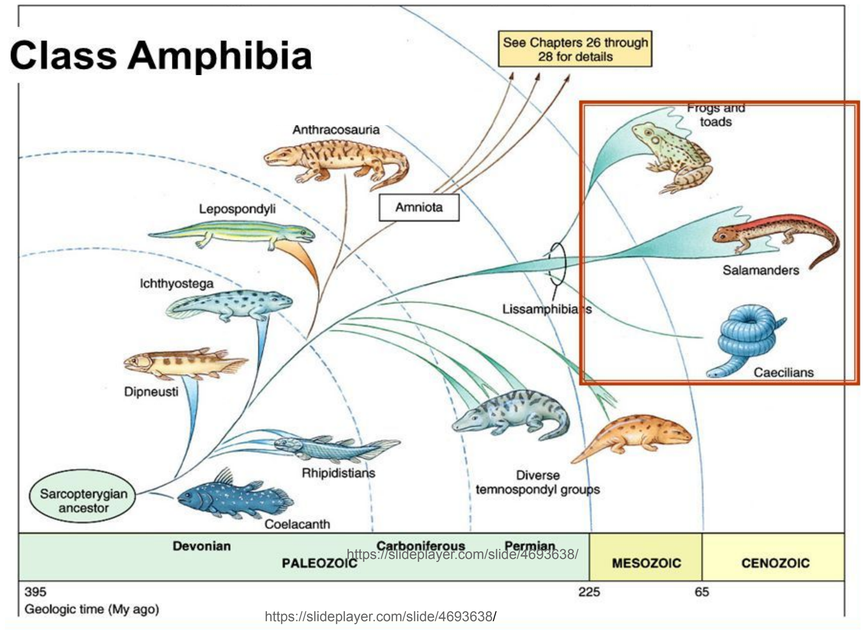
albanerpetontidaes are closely related to frogs and salamanders, but not to caecilians.[2]

Phylogeny



https://www.tandfonline.com/doi/pdf/10.1671/0272-4634%282002%29022%5B0012%3AMAIGRO%5D2.0.CO%3B2?needAccess=true

-Genus: Albanerpeton
-the changes in each taxa involved broadening of the head & strengthening of the snout and jaws, both intended for improved feeding and burrowing[2]



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The albanerpetontid family is recognized as part of the clade/amphibian sub-class **lissamphibians**

★ Crown group of amphibians is lissamphibia. Not all amphibians are lissamphibians, but all lissamphibians are amphibians[1]