

CLASSIFICATION OF REPTILE

Reptiles are the first amniote vertebrates which can live independent of water. Reptiles evolved from a special carboniferous amphibian stock which have probably developed the habit of laying shelled eggs with amnion, chorion and allantois in the telolecithal eggs. Reptiles survived and dominated the earth during Mesozoic Era which is regarded as "Golden age of Reptiles".

Q. What is chevron bone?

Q. What is Jacobson organ? (Hyperlink with snake biting mechanism)

Q. What do you mean by pecten of reptile?

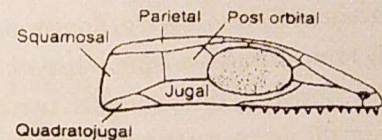
Q. Distinguish between carapace and plastron.

Q. Classify reptile on the basis number and position of temporal fossae.

The present classification is based on the presence or absence of temporal fossae (cavity). [Temporal region is the postero-lateral part of the skull. It may contain or don not contain any cavity or fossa].

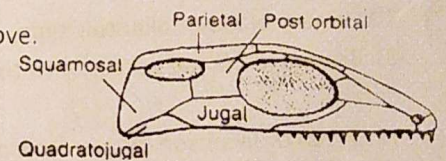
A. Anapsida (without arch):

1. It has no temporal fossae, temporal region is completely roofed.
2. In addition, the quadrate is structurally articulated to the *otic* bone.
3. It has only living order Chelonia.



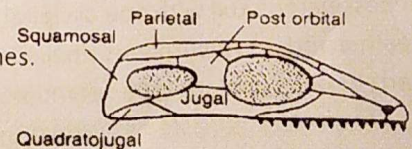
B. Parapsida:

1. Skull with one pair of temporal fossae, one on each side.
2. Temporal fossae bounded by post orbital, supra temporal (*behind*) and parietal above.
3. Found in fossil forms like, *Mesosaurus*, *Ichthyosaurs* etc.



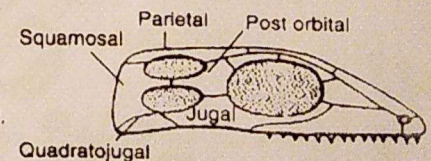
C. Synapsida:

1. Skull with one pair of temporal fossae, one on either side.
2. Temporal fossae surrounded by post-orbital, squamosal, jugal and parietal bones.
3. This type is found in Pelycosaurs.



D. Diapsida:

1. Superior temporal fossae bounded by *post-frontal*, *post orbital*, *squamosal*, *supra temporal* and *parietal*.
2. Infra temporal fossae bounded by *jugal*, *post orbital*, *squamosal* and *quadrate*.
3. This is seen in the subclasses *Lepidosauria* and *Archosauria*, perhaps the most successful groups of reptiles.



N.B. In *Lepidosauria* of the order *Squamata*, however, the lower temporal arch is always incomplete, having no quadratojugal bone and the jugal separated from the squamosal. In some lizards and snakes the upper arch is also lost.

Q. Make a brief note on pattern of skull found in Reptile.

Q. Give salient features of a reptilian skull.

- i) Skull: well ossified, heavy and with small cranium.
- ii) Occipital condyle: single.
- iii) Basisphenoid and basioccipital: Large.
- iv) Teeth: Conical and homodont.
- v) Quadrate: present.

Q. State important features of skull found in vertebrate.

- i) Cranium: Bony or cartilaginous and enclosed a cavity.