

General Characteristics of Class Reptilia:

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Reptiles are tetrapod animals in the class Reptilia, comprising today's turtles, crocodilians, snakes, lizards, tuatara, and their extinct relatives. The study of these traditional reptile orders, historically combined with that of modern amphibians, is called herpetology. The earliest known proto-reptiles originated around 312 million years ago during the Carboniferous period.

These were the first class of organisms to adapt to life on land. They are believed to have evolved from the amphibians millions of years ago. There are about 10000 different species of reptiles on earth. They are cold-blooded animals belonging to the phylum Chordata of Animal kingdom. Reptiles are mainly animals of Earth's temperate and tropical regions.

The skull of the reptiles is modified that gives the reptiles an efficient and powerful jaw action. The modification also makes the skull light.

Characteristics of Reptilia

Following are the important characteristics of the animals belonging to Class Reptilia:

- These are creeping and burrowing terrestrial animals with scales on their body.
- They are cold-blooded animals found in most of the warmer regions of the world.
- Their skin is dry, and rough, without any glands.
- The body is divided into head, neck, trunk, and tail.
- Few of these shed the scales on their skin as skin cast.
- The respiration takes place with the help of the lungs.
- The skull is monocondylic.

- They have two pairs of pentadactyl limbs, each bearing claws. Snakes are an exception.
- The heart is 3 chambered. However, crocodiles have a 4-chambered heart.
- The nervous system comprises of 12 pairs of cranial nerves.
- The lateral line system is absent in reptiles.
- Except for snakes, all the reptiles have well-developed ears.
- They possess a typical cloaca. Reptiles are ureotelic, uricotelic, and ammonotelic.
- **Fertilization** is internal.
- They exhibit a meroblastic segmentation.
- They are oviparous and the eggs are very yolky.
- Eg., Snakes, Turtles, Lizards, Crocodiles

Classification of Reptilia

The class Reptilia is differentiated into two major sub-classes:

- **Anapsida** – no fenestrae – cotylosaurs and **Chelonia** (turtles and relatives)
- **Synapsida** – one low fenestra – pelycosaurs and therapsids (the 'mammal-like reptiles')
- **Euryapsida** – one high fenestra (above the postorbital and squamosal) – protososaurs (small, early lizard-like reptiles) and the marine sauropterygians and ichthyosaurs, the latter called **Parapsida**
- **Diapsida** – two fenestrae – most reptiles, including lizards, snakes, crocodilians, dinosaurs and pterosaurs



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