



Domain	Eukaryota
Kingdom	Animalia
Phylum	Chordata
Class	Reptilia

VERTEBRATES

Reptiles

320 MYA – PRESENT

Reptiles evolved from amphibians. The evolution of the amniotic egg, an egg with a waterproof shell allowed reptiles to lay eggs on land. Modern reptiles include turtles and tortoises, crocodiles, alligators,

lizards, snakes, and the unique tuatara from New Zealand. Most reptiles have a skin protected by overlapping scales, crocodiles and turtles have bony plates called 'scutes'.

Fossil Record

Reptiles first appear in the fossil record in rocks from the late Carboniferous. By the end of the Carboniferous, reptiles had become the dominant land vertebrates and had split into two major groups. One were the synapsids, commonly referred to as mammal-like reptiles and are the ancestors of all mammals. The other were the diapsids, often referred to as 'true reptiles' and are the ancestors of all modern reptiles, dinosaurs, ichthyosaurs, pterosaurs, plesiosaurs, and birds.

Habitat and Lifestyle

Most reptiles are predators that have developed sophisticated hunting techniques such as venom in snakes. Some reptiles are herbivores, like turtles and some lizards. Reptiles inhabit most continents on both land and in the water. The marine iguana of the Galapagos Islands, spends a significant amount of time in the sea feeding on marine algae.

Some turtles live entirely in a marine environment, only coming onto land to lay eggs, while tortoises are solely terrestrial. Crocodiles and alligators live in rivers and on riverbanks, and in estuaries.

Reptiles eat a variety of foods, although most modern reptiles are carnivorous. During the Mesozoic many reptiles were herbivorous and only a few were carnivorous.

Fossilisation

Fossilised remains of reptiles are found worldwide. One spectacular find from South Australia is a plesiosaur skeleton fossilised as opal.



Close up of a saltwater crocodile *Crocodylus porosus* eye. Image from Storme22k, pixabay.



Small reptile, *Hyphalosaurus*, early Cretaceous (about 120 million years old), northern China. Image from Gao and Ksepka 2008.

DID YOU KNOW

A Queensland holiday may not have been a good idea 1.5 million years ago. If you were camping in southeastern Queensland at that time, you would have had to watch out for giant goannas and crocodiles that may have been up to 5.5 m long!



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