

2. Reptiles

Reptiles, class reptilian, a diverse group with many extinct lineages, is today represented by some 7000 species of lizards, turtles, snakes, and crocodilians. Reptiles are the ancestors of all terrestrial animals including mammals. Birds are descended from the extinct giant reptiles, the dinosaurs.

Reptiles all have some common characteristics. One is scales containing the protein keratin that waterproofs the skin helping to prevent dehydration in dry air. Reptiles take oxygen in through their lungs. Most reptiles lay shelled amniotic eggs on land. Lizard, snake and some turtle eggs are soft and leathery whereas crocodilian and some turtle eggs are solid and hard-shelled like bird eggs. Some reptiles are *viviparous* snakes and lizards; that is, their young are born alive. All reptiles are *ectotherms* (ecto - outside, thermic – heat); that is, they do not produce their own body heat through metabolism, but instead use behavior to control their body temperature. Reptiles bask in the sun to gather solar energy to raise their body temperature and since reptiles cannot sweat, they move into shade or water to cool down.

The first reptiles appeared about 300 million years ago and the major period of domination by reptiles lasted from about 250 million years ago to 65 million years ago. Included in this time period was the reign of the dinosaurs.

Today, there are 3 major orders of reptile. Chelonian – turtles, Squamata – lizards, and Crocodilian – alligators and crocodiles.

Turtles have hardly changed over the past 200 million years. Turtle eggs have hard or tough, leathery shells and all lay eggs on land.

Lizards are the most diverse reptiles. Most are relatively small and can be carnivorous, insectivorous, or herbivorous.

Snakes are descendants of lizards that first adapted a limbless life underground and then returned to the surface. All snakes are carnivorous.

Crocodilians are the largest, heaviest reptiles. They live in warm areas of the earth and are carnivorous. Their eggs have hard shells like bird eggs. Also, crocodilian mothers care for their young, unlike other reptiles. They are the closest living reptiles to dinosaurs. It follows that the closest living relatives of crocodilians are birds.