



The Paleozoic

By

Doug Mann

The Paleozoic Era began about 550 million years ago. Paleozoic means old life.

At the beginning of the Paleozoic Era there were many new kinds of animals. Thanks to the work of the cyanobacteria, earth's atmosphere was rich in oxygen. The new life forms used oxygen to live.

All phyla were represented in the beginning of the Paleozoic. Arthropods, mollusks, and echinoderms were present. The first chordates, predecessors to the vertebrates were there too. As were jellyfish, worms, and sponges.

Some of these animals could take minerals from the ocean water. They used the minerals to make hard body parts. For the first time in earth's history animals had teeth! They made shells to protect themselves.

Because of these hard body parts we can find fossils of the animals that lived during this time. Trilobites are the most famous of the animals that lived during the Paleozoic.

There were six distinct periods of the Paleozoic Era. They were:

1. The Cambrian Period
2. The Ordovician Period
3. The Silurian Period
4. The Devonian Period
5. The Carboniferous Period
6. The Permian Period

Each period has characteristics that make it different than the other periods. The weather changes over time sometimes warmer, sometimes cooler. Even the continents moved to different places on the earth! These changes favored different groups of animals at different times. Animals that could adapt to the new conditions became more successful.

During the first three periods there was no life on land. At the end of the Silurian Period the first plants started to grow on land. This happened slowly at first but by the carboniferous Period there were many plants and animals living on land.

Many of the animals were amphibians. They lived part of their lives in the water and part on land.

The first reptiles evolved towards the end of the Paleozoic Era. They had thick scaly skin and didn't need the water to lay their eggs like the amphibians.

The Permian Period was the last period of the Paleozoic Era. Something drastic happened at the end of the Permian Period. It affected all living things. Many animals became extinct at the same time. Even species that survived had their numbers greatly reduced.