



Let's go to Dawn of Ocean of Life!

Around 4 billion years ago, as the Earth was formed "the origin of life" was born in the sea. Numerous organisms, born from this basic form of life, passed down the necessary information for survival, and continued to evolve through the ages. Today, we are surrounded by diverse forms of life... Let us trace the path we have taken. Let us unravel the mystery of the Earth, the sea and the evolution of life, On behalf of the extinct organisms, Let's find out what is in store for us in the future to live on this globe.

When did Life Begin?

The fossil of the oldest organism was discovered in Western Australia. About 0.1mm in size, it is dated at 3.5 billion years. The fossil is considered to be of an organism similar to bacteria. In what kind of environment did this organism live? When and how the life began remains an unsolved mystery.

Ediacaran Biota

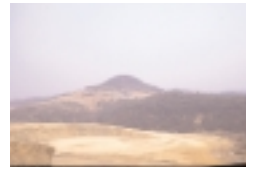
Fossils of the Ediacaran biota were found in the Ediacara hills in South Australia. The fossils are dated at about 560 million years old, just before the beginning of the Cambrian Period.

Ediacaran animals had flat bodies, which were laid on the seabed, and perhaps absorbed nutrition directly from the sea water. Little is known regarding these mysterious animals.

Chengjiang Fauna

During the late 1990's, a group of palaeontologists discovered two fossils of the earliest vertebrates ever found. The specimens came from Haikou, Yunnan Province of South China. The area around Chengjiang is becoming internationally recognised as a key locality for the study of soft-bodied fossils from the Early Cambrian Period, about 530 million years ago.

The origin of vertebrates, which include mammals, birds, reptiles, amphibians and fish, is one of the largest mysteries for evolutionary biology. Clear fossils of the primitive agnathan fish have been long known from the Lower Ordovician Period (~475 million years ago), with more questionable examples from the earlier Cambrian Period (510-545 million years ago). The newly described fossils from Chengjiang Faunas have been clearly identified as agnathans, a discovery that pushes back the fossil record of the vertebrates about 50 million years.



Emu Bay Shale Fauna

Fossils of Emu Bay Shale Fauna, in Early Cambrian, were found at Kangaroo Island in South Australia. They sometimes include the soft-bodied fossils like Chengjiang Fauna.

Burgess Shale Fauna

Burgess Shale fossils found in the Rocky Mountains in western Canada in 1909 are believed to be dated about 520 million years old. Animals having bizarre shapes, without bones or shells, are here preserved intact. Groups related to many of the modern animals have been identified in this assemblage. The Burgess Shale has made a major contribution to the study of evolution.



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