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Perm: Characteristics, Distribution, Geology, Flora and Fauna

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Abstract:

This was the sixth Palaeozoic period between Carboniferous and Triassic (Mesozoic). This lasted for about 48 million years and it can be said that it was a time of transition for the planet both geographically and climatically. During the Permian period, a number of important biological changes took place, such as the first outline of mammals in the so-called mammalian animal statistics, as well as the diversity and expansion of all other living things that exist. This period has been studied very well by experts, especially at the end of it, because the most destructive and destructive mass extinction event on the planet took place here (more than the extinction of the dinosaurs). Caused to happen). In it, commonly known as the "Great Death", more than 90% of the species disappeared. During this event, conditions on the planet changed in such a way that life on the planet was practically unbearable.

Key Words: Perm: Characteristics, Distribution, Geology, Flora and Fauna

Introduction:

During this period, the Earth experienced relatively variable climates, as glaciations were observed both at its beginning and at its end, and during its middle stages, the climate in particular The tropics were hot and humid. During the Permian period, some species of animals became very diverse. This is the case with such animals, which are considered mammals, because, according to the fossil record, they may be the ancestors of modern mammals.

Great dying

It was a large-scale extinction event that took place at the end of the Permian period and at the beginning of the later period, the Triassic. It was the most devastating extinction process the planet has ever gone through, as it wiped out approximately 90 percent of the species that inhabited the planet.

There are many reasons why this incident has been explained. One of the most widely accepted is the intense volcanic activity that has released large amounts of carbon dioxide into the atmosphere, which has contributed to global warming. Similarly, the release of carbohydrates from the bottom of the oceans and the effect of meteorites have been suggested as reasons. Whatever the reasons, it was a catastrophic event that greatly affected the planet's ecological conditions.

Geology

The Permian era began shortly after the Carboniferous era. It is important to note that at the end of the Carboniferous, the Earth underwent glaciation, so traces of it are still present in Permian.

Similarly, during this period, the Pangea of the subcontinent was almost completely united, leaving only a few small fragments outside, such as in the southeast of the Asian continent.

During this period, a part of Panjia, especially Gondwana, separated and started moving towards the north. This piece was called Semiria. The continent now includes Turkey, Tibet, Afghanistan, and parts of Asia, such as Malaysia and Indochina. Due to the separation of Semeria and the resulting displacement, the sea of Paleo Tethys closed, until it disappeared. Eventually, in another epoch (Jurassic), it will cause a collision with the continent of Lauracea, known as Semiren and Genie.

Similarly, the surface area was also low, as has been the case during previous periods, Carboniferous. Similarly, Harsania and Jenny had their last phase during this period.

Hersenin Origen

As is well known, it was a process of mountain formation, due to the movement and collision of tectonic plates. It lasted for about 100 million years. This orogeny consisted mainly of collisions between two supercontinents: Gondwana and Lorasia. As with any subcontinental collision, the Hershey orogeny formed large mountain ranges that are thought to resemble the peaks of the Himalayas.

However, these are only speculations by experts based on fossil records and estimates, as these mountains disappeared as a result of natural erosion. It is important to note that herculean orogeny played a key role in the formation of pancreas.

The current sea

In the Permian era, it was not the LandMads that made the changes. Some of the water bodies were also replaced.

Pantalasa Ocean: This is the largest and deepest ocean on the planet, which is a precursor to the present Pacific Ocean. It was encircling the people of the whole continent.

Cup Ocean - Tethys: It was occupying the "O" of the continent Pangea, between the regions of Gondwana and Larcia. However, when Semiria separated from Gondwana and slowed down in the northWhen it started moving, the ocean slowly closed, until it became a sea channel.

Ocean Titus: Formation began during this period, as a result of the displacement of Semiria to the north. As the Sea of Paleo Tethys closed, it began to form behind Semeria. He had occupied the same place as Paleo Tethys. Baptized with this name in honor of the Greek sea goddess Thetis.

Weather

There were some significant changes in the climate during the Permian period. The first thing to note is that this period began with glaciation. At the beginning of the period, part of Gondwana was covered with snow, especially towards the South Pole.

Towards the equatorial region, the climate was extremely hot, which facilitated the growth and stabilization of various organisms, fossil records show.

As time went on, the planet's climate stabilized. Low temperatures were limited to the poles, while the equatorial region maintained a warm and humid climate.

This was true in areas near the sea. Kilometers in Pangea, the story was different: the climate was dry and arid. According to experts, there was a possibility that the seasons would change with heavy rains and prolonged drought in the region.

By the end of the period, the ambient temperature decreased, followed by a significant increase, which, according to various assumptions, was due to various reasons: the presence of different gases such as volcanic activity and carbohydrates in the atmosphere, among others. -

Flora

During this period, the level of atmospheric oxygen was slightly higher than it is today, which could lead to the growth of a large number of both plant and mammal life.

In the Permian period, plant life is quite diverse. Carboniferous was dominated by some plants.

The Fern Group, in particular, flatly refused during this period. Similarly, there were forests in the tropics, which could thrive due to the favorable climate of the region.

Similarly, the plants that dominated the Permian period were the gymnosperms. It is important to remember that these plants belong to the group of seed plants, their main characteristic is that their seed is "naked". This means that the seed does not develop in the ovary (as in angiosperms).

Among the gymnosperms that have their appearance on the earth, we can mention Ginkgo biloba, Confucis and Sycadus.

Ginkgo biloba

The first specimens of this group are thought to have appeared in the Permian period. These were violent plants, which meant that there were male reproductive organs and plants had female reproductive organs.

These kinds of plants were very good. The leaves were broad, fan-shaped, and it was estimated that they could reach a distance of 20 cm.

Almost all species have become extinct, at present there is only one species, Ginkgo biloba.

Conifers

They are plants whose names are indebted to the structure in which their seeds are stored. The first representatives of this group appeared during this period. They were monotonous plants, with reproductive structures, females and males in the same individual.

These plants can adapt to extreme environments, such as extreme cold. The leaves are simple, needle-shaped and perennial. Its trunk is made of wood.

Cicadaceae

This type of plant has managed to survive to this day. Its characteristics include its woody trunk, without branches, and its panate leaves, which are located at the terminal ends of the plant. They were also violent. They performed for men and women.

Animal

Breeds of some species of animals in the Permian period, which originated in earlier periods, such as Devion or Carboniferous.

During this time, however, an important group of animals emerged, the mammals, which experts consider to be the ancestors of today's mammals. Similarly, life in the oceans was diverse.

invertebrates

Within the group of invertebrates, some marine groups such as echinoderms and molecules stood outside. Various fossil records of Bolivivus and Gastropods as well as Brechipods have been found.

Similarly, within this group and in the marine ecosystem, members of the Porphyres Edge (Sponges) stood, which were part of the barrier rocks.

There was a type of protozoan that reached a great deal of diversity and development during this period. Although they have become extinct, an

abundant fossil record has been found, in which more than 4,000 species have been identified. Their special feature was that they were safe in the presence of calcareous matter.

Arthropods, on the other hand, especially insects, have survived, at least in the beginning, as in Carboniferous. It should be noted that the amount of insects was very important.

An example of this was the Magnura, the so-called "giant dragonfly", as well as other members of the group of Archanides. However, as time went on, the number of these insects gradually decreased. Experts have suggested that this may be due to a lack of oxygen in the atmosphere.

Finally, within the group of arthropods, several new orders appeared during this period, such as Diptera and Coliptera.

The Kashmiris also experienced a great deal of expansion and diversification in the aquatic and plain ecosystems.

Fish

The most representative fish of this period include the Sondrichhian (cartilaginous fish), such as the shark and the bony fish.

Hybrids

He belonged to the Chondrichian group. It was a species of shark called CretaceousDisappeared in Var. According to the data collected, it is believed that he can eat mixed food, because his teeth are of different shapes, adapted to different types of food.

They were very similar to today's sharks, although they were not large, as they could only reach 2 meters in length.

It was an extinct species of fish. Although it belonged to the group of sharks, its shape was quite different. He had a long and somewhat slender body, like

that of El. He also had a variety of teeth, which allowed us to guess that he could eat a variety of foods.

There were several tetrapods (with four legs) during this period. Among them, one representative was the most representative Temnospondyli. It flourished during the Carboniferous, Perman, and Triassic periods.

It was a very diverse group, ranging in size from a few centimeters to 10 meters. His limbs were small and his skull was long. As for its diet, it was a carnivore, mainly preying on small insects.

Reptiles

It was a group that faced a lot of diversity. During this time the so-called therapies, as well as the yellow cosplay, came into being.

Therapeutics

This is a group of animals that are considered to be the ancestors of today's mammals. Because of this, they are known as mammals.

Among their distinctive features, it may be mentioned that they had several types of teeth (such as modern mammals), each adapted to different functions. They also had four limbs or legs and their diet varied. There are carnivores and other herbivores.

Desknodontes

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Compared to these types of therapies, the body was quite compact, with resistant and small bones. Similarly, its teeth were quite small and its spots were turned into beaks. In terms of food, it was purely syrupy.

Synodontes

They were a group of small animals, I meter long. Like the modern handicraftsmen, they had different types of teeth, specializing in different functions such as tearing, cutting or grinding.

Experts believe that the body of this type of animal could be covered with hair, which is a special feature of the mammal.

It was a group of animals with somewhat physically compact bodies, with four small limbs and a long tail. Similarly, on their superficial surface they had a wide pin which, according to experts, helped to keep the body temperature constant. Allows them to be regularized.

Mesosource

This reptile that meets the freshwater ecosystem deserves a separate place, where it was a recognizable predator. His body was longer than he was tall and he was provided with long teeth. Externally, they resemble existing crocodiles.

Divisions

Permen are divided into three positions, and, as a result, are found up to the age of nine.

Caesar Lane

This was the first division of this era. It lasted 29 million years and resulted in four ages:

Asselian (299 - 295 million years)

Sakmarian (293 - 284 million years)

Artesian (284 - 275 million years)

Kangaroo (275 - 270 million years)

Guadeloupe

The second division of this period. With a period of 5 million years. It consisted of three ages:

Rhodians (270 - 268 million years)

Verdun (268 - 265 million years)

Captain (265 - 260 million years)

This was the last division of this era. It lasted for 900,000 years. The ages that made up this age were:

Wuchiapian (260 - 253 million years)

Changxian (253 - 251 million years)

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