

The extinction of the dinosaurs



Was it an asteroid that killed the dinosaurs?

The extinction of the dinosaurs started in the cretaceous period, around 65 million years ago, and caused the loss of up to 70% of all life on earth. The way in which the dinosaurs died is a much argued topic which can be explained by a lot of theories one of which is the Asteroid theory.

The Asteroid theory

There are a lot of reasons to suggest that an asteroid did hit the earth but there are much less reasons to suggest that it did kill the dinosaurs. Walter Alvarez and colleagues brought the asteroid collision theory to attention in 1980 which links the extinction event to a Bolide (an object that cannot be described as a comet, asteroid or meteorite) hitting the earth at just the right speed to cause cataclysmic damage to the Earth. Much of the evidence now suggests that a 5 to 15kilometer wide bolide hit in the vicinity of the Yucatan Peninsula, forming the Chicxulub Crater and started the mass extinction.

Some scientists propose that the bolide caused a long drop in Earth's atmospheric temperature (Causing the ice age); while others claim that it would have instead created an unusual heat wave. Scientists are not certain whether dinosaurs were thriving or declining before the impact event.

Before the asteroid hit, the earth was on a straight axis, it had to be at some point, so this shows that the asteroid hit the earth at such a speed and at a certain angle to knock it off its axis to how it is now, which may show that the dinosaurs could then not cope with the earth's new position and died because of it. Also the asteroid hitting the earth would cause a chain reaction

of volcano explosions, earthquakes and other storms which may have spanned thousands of years and we may still be suffering the effects of these today. The soot and debris from the impact would have blocked out the sun's rays. This would eventually kill the dinosaurs through lack of vitamin D.

Agree?

The asteroid theory is the most accepted one because there is more evidence that proves it than evidence that disproves the theory. Like the tilt the world is on at the moment couldn't be the same tilt the world was on at first, it must have been thrown off its tilt some time, and this asteroid is the perfect example of this. Another thing that agrees with that theory is dinosaurs died out in the cretaceous period, the same year the asteroid hit the earth. A crater can be found in the Gulf of Mexico on the Yucatan peninsula which dates back 65 million years ago, to the cretaceous period of time.

Disagree?

The one thing I would disagree with is the fact that scientists have found out that dinosaurs have died out over a long period of time after it would have hit and the asteroid would have wiped out the dinosaurs and most life on earth over a short period of time.

Effects on marine life

As a result of the asteroid hitting the levels of oxygen in the sea would have decreased as deep sea water was dragged to the surface by huge under water currents. Plankton would have died because of this sudden change in environment and temperature, as a consequence there was a huge collapse

of the food chain, and certain animals would have died because of this collapse. Acid rain may also have increased the acidity of the sea, killing vulnerable species.

Problems with the theory

The asteroid theory is the most popular one although problems with this still puzzle scientists. There are still dinosaur fossils from the time of the asteroid impact that palaeontologists have not yet found, and there is no evidence to prove that the dinosaurs didn't die out before the impact. In fact, before the Chicxulub asteroid impacted, dinosaurs had been steadily declining for tens of thousands of years.

During the life of the earth, many mass extinction events have taken place, and a large number of asteroids have hit the planet. There is no hard evidence that would suggest that the impacts have caused mass extinctions. Some species are climate sensitive, such as frogs, and these survived the cretaceous extinction event, we still have them today. This brings into question what effect in the long term does an asteroid impact actually have on the environment?

The asteroid theory still remains the strongest one, in spite of the problems, for the extinction of the dinosaurs. Why the dinosaurs became extinct may not lie with one explanation but with a series of events, asteroid impacts and mass volcanic eruptions all combining together causing the climate to be unbearable to most living creatures. Was this a case of the creatures being in the wrong place at the wrong time in history?

Conclusion

My conclusion on this subject is that I side with those that believe it was an asteroid that wiped out the dinosaurs because the evidence points more towards the asteroid than other theories. However as there is yet any real hard evidence to prove this I cannot say defiantly that this is the case. The reason that the dinosaurs became extinct is an argument that scientists will disagree on for many, many years to come. No doubt one day in the future, a scientist doing some routine research will accidentally stumble across the missing piece of this long time puzzle.

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