

Grand Canyon National Park's Ranger Audio Tour Stop # 17 Fossil Site

Hi there, this is Ranger Haley, and welcome to one of the world's most amazing geologic wonders. Now, my favorite thing about geology is that every rock has a story to tell. And as Grand Canyon has nearly forty different rock layers, it's home to an awful lot of stories. I'd like to share with you the story of the Kaibab Limestone, which happens to be the rock layer just under your feet. The Kaibab Limestone formed about 270 million years ago, when this region was covered in a shallow warm sea, kind of like the Caribbean. If you could have snorkeled in this ancient ocean, you would have seen filter feeders like sponges, bryozoans, and horn corals growing on the sea floor while fierce predators like nautiloids and trilobites, patrolled in search of prey.

You might wonder how we know what this ancient ecosystem looked like. Well, the answer lies on the trail before you. Right now you're standing in the midst of a fossil site. Get low to the ground so you can better see and touch the thousands of fossils. But please leave these remains of the past where they lie so that others might appreciate them as well.

Instead of going home with rocks in your pocket, I'd like you to take home the story the Kaibab Limestone has to tell us. You see, these fossils reveal a snapshot of an ocean teeming with life, but shortly thereafter the picture changed dramatically as the earth experienced the greatest mass extinction in its history. About 95% of marine species, including many of these creatures, died off, never to be seen again. Rocks deposited during the extinction, reveal an atmosphere choked with greenhouse gasses, a planet showered in acid rain, and ocean levels that changed dramatically. And though scientists don't agree on the details, the most prominent theories suggest that global warming was responsible for this greatest of all extinctions.

The Kaibab Limestone, then, reminds us that our climate is fragile. Though modern climate change has not yet approached the severity of Permian times, we can't afford to ignore the realities of our changing planet. If you're interested in learning more, our Visitor Centers have information on climate change in parks and what we can do to help protect these special places.

The second lesson of the Kaibab Limestone is that life itself is also fragile and short. Which is why I hope you make the most of your stay here at Grand Canyon and enjoy all that this geologic wonder has to teach us.