

My Life as a Geoscientist

A paleoecologist tells her story

You may wonder what the purpose of a paleoecologist is. You might be asking why people like me would devote their lives to studying and researching the function and distribution of ancient organisms and their relationships to the world around them. What do ancient organisms have to do with life today? We want to make sure that a certain form of life doesn't drastically come to an end. Why should it matter if it's not happening to us, you might be asking? I am here to answer those questions for you.

First of all, paleoecology is a branch off of paleontology. You must have a good understanding of sedimentology and paleontology in order to be a successful paleoecologist. We believe by that by seeing how life lived and died many, many years ago we can see what might happen to current or future existence if we do some of the things environmentally that occurred years ago. Some things, of course, are all of nature's doings. For example, during the past twenty years I have been focusing most of my research on mass extinction. This is because extreme changes in the Earth's physical structure can greatly change how anything lives on the Earth. Some people think nothing can completely wipe out the human race. This is completely untrue. If smaller organisms vanish, that leaves less for us. The job of being a paleoecologist helps me to help the Earth in making sure this doesn't happen.

Recently I was working in Southern Mexico, at the same site of the ancient Mayan civilization. We found that from preserved pollen grains the climate quickly became dryer following the collapse of the Mayan empire. The fact that the climate became dryer explains the population decrease after the collapse. To come to this conclusion we reconstructed the climate of the region using the pollen grains. Overlapping the possible growth conditions for each plant in an area can make an accurate picture of the local climate. This helped us solve an archaeological mystery.

Some scientists have said that giant amounts of extinction can happen from the times in history and that they don't particularly represent the majority of what happened in the past. Although that has not yet been proven, it maybe true. We as paleoecologists are trying to prove that everything that happens in Earth's history to the climate or the environment has an effect on what may happen in the future. So far, many of the things that we have discovered have supported this idea. In the future we hope to make many more discoveries. Hopefully by learning all of the different ways past creatures have terminated, it will prevent that from ever happening again.

I hope I've answered all of your questions about paleoecology. Maybe someday you'll consider pursuing a career in paleoecology or any branch of geoscience.