

After an asteroid crashed into what is now Chicxulub, Mexico 66 million years ago, a chain of events occurred that caused dinosaurs to disappear and mammals to flourish. But figuring out exactly what happened after this event, known as the Cretaceous-Paleogene (K-Pg) mass extinction event, has been tricky due to a sparse fossil record. Yesterday (October 24), a team of researchers published a paper in *Science* detailing their 2016 discovery of a trove of plant and mammal fossils that sheds light on how ecosystems recovered after the asteroid impact.

The researchers, led by vertebrate paleontologist Tyler Lyson at the Denver Museum of Nature and Science, have found over 1,000 vertebrate fossils, including 16 mammal species at the Corral Bluffs fossil site, located near Colorado Springs. They also found over 6,000 leaf fossils and 37,000 pollen grains, reports *The New York Times*.

“With this discovery, we’re starting to see the entire skull of many of these mammals that we previously only knew from teeth,” Stephen Chester, a mammalian paleontologist at Brooklyn College and paper coauthor, told the *Times*.

The site shows a near-continuous record of plant and animal life over a period of one million years following the K-Pg mass extinction, according to *Science*. Lyson and his team were able to determine the age of the site through volcanic ash layers with radioactive minerals, along with the presence of many fern fossils, which thrive after an ecosystem has been disturbed.

The researchers found that plants and animals rebounded faster than previously thought, and that when ferns were replaced by palm forests, the variety of plants also sparked diversification of mammals from small rat-sized animals to larger ones. By 700,000 years after the extinction event, some mammals were 100 times bigger than ones that had lived through the asteroid impact.

“This is one of those discoveries all paleontologists dream of,” Steve Brusatte, a paleontologist at the University of Edinburgh who was not involved in the research, tells Science News.