

North Slope dinosaur remains challenge current theory

What killed dinosaurs? That's murder mystery that scientists have been trying to solve for a long time.

Part of the answer may be coming from Alaska's North Slope.

This summer, a team of California and University of Alaska-Fairbanks scientists conducted a preliminary survey of Alaska's first confirmed site of dinosaur bones. Evidence of dinosaur—footprints, tracks, and skin impressions—previously have been found, but never bones.

At the site, researchers found more than 150 specimens from at least five different reptilian species. Duck-billed dinosaurs called hadrosaurs are most abundant in the site. Teeth from two different types of carnivorous dinosaurs were found, as were the remains of a crocodile type animal.

"The fossils and the geological data indicate that the hadrosaurs and their contemporaries were inhabitants of a coastal swamp. Its environment appears to have been subtropical to temperate," said Dr. Carol Allison, curator of paleontology and geology for the University of Alaska Museum.

No complete skeletons were discovered. The bones were disarticulated, which means they were not connected.

The site was an active habitat for dinosaurs at the end of

Cretaceous Period some 65 million years ago, about the time

with the relatively new theory that dinosaurs died out after a massive

ed a period of darkness which caused dinosaurs to die out. It

"The discovery that dinosaurs lived at high latitudes challenges the asteroid theory of dinosaur extinction."

that many of the giant reptiles disappeared.

Not only is the site Alaska's first confirmed evidence of dinosaur bones, it is apparently the northernmost such site ever discovered. At the time of the dinosaurs, the site was between 70 and 80 degrees north latitude. Comparable latitude today is from the top of Norway to more than 700 miles north into the Arctic Ocean.

Alaska was a different type of place 65 million to 70 million years ago. All evidence is that it was much warmer. Temperatures seldom, if ever, dropped below freezing.

While the global climate was more equitable than today, all available evidence indicates that the location had the northland's long summer days and long winter nights.

This is significant to Dr. William Clemens. A professor of paleontology, Clemens disagrees

asteroid hit the earth. According to the theory, the collision threw millions of tons of debris into the atmosphere. Atmospheric debris blocked the sun's rays and caus-

was argued that the dinosaurs could not survive such a long night.

"This extended period of darkness, coupled with decreas-

ed temperatures or changes in the atmosphere were suggested to have been lethal to the dinosaurs and other reptiles," Clemens said. "The discovery that dinosaurs lived at high latitudes and consequently must have adapted to annual periods

Clemens will conduct extensive laboratory studies on the bones at Berkely. The bones and other remains found during this year's field season and future field seasons will be permanently housed at the University of Alaska Museum.