

Hunting Dinosaurs in the Gobi Desert of China and Mongolia

The first dinosaurs from the Gobi Desert of China and Mongolia were discovered by an expedition of the American Museum of Natural History (New York) under the leadership of Roy Chapman Andrews. Their first dinosaur specimens from central Asia were found one century ago this year at Erenhot, on the border between China and Mongolia. However, their most famous discoveries were made the following year in a place that they called the Flaming Cliffs (Bayan Zag). These were the first recognized dinosaur eggs in the World, and they attributed them to a hornless “horned” dinosaur, which they named *Protoceratops*. They also found other dinosaurs at the Flaming cliff

The Late Cretaceous dinosaurs of Mongolia have become known from some of the most famous fossil localities on the planet and some of the richest known dinosaur sites (such as Nemegt). The earliest work was mostly done by foreign scientists working in mega-expeditions from the American Museum of Natural History and the Soviet Academy of Sciences. Today, we are witnessing an explosion of interest in the region, thanks mostly to the activities of local, regional, and national museums, many of which were created recently because of newly developed interest in China and Mongolia in dinosaurs.

Although the Nemegt basin remains one of the best dinosaur sites in terms of numbers of specimens and diversity of species, the gaps in ecological, geographic, and temporal understanding of dinosaur faunas are being filled in as newer sites are developed. The ecological and latitudinal variations in the dinosaur faunas are surprisingly similar to those known from Canada and clearly show intercontinental interchanges were prevalent throughout the Late Cretaceous. Similar ankylosaur, hadrosaurid, tyrannosaurid and other dinosaurs are known from both Alberta and Mongolia. However, whereas sauropods are prevalent in Mongolian sites, they are absent in Late Cretaceous sites in Alberta. Ceratopsids are very common in Alberta but are almost unknown in Asia. Finally, there are endemic species characteristic of individual sites. Perhaps the strangest of these is a giant ornithomimid known as *Deinocheirus*, which has only been found in the Nemegt Formation of Mongolia.

The speaker has been working in central Asia almost every year since 1986, with the notable exception of the last two summers (2020, 2021) because of disruptions caused by the COVID-19 pandemic. He plans to return in 2022 for the 100-year anniversary of the Third Asiatic Expedition of the American Museum of Natural History.

