



The Case for a Global Geopark in Mongolia's Northeast Gobi Altai region

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Mongolia's Geoheritage is of exceptional value, but little known to the outside world. In this presentation, I make the case that the northeastern Gobi Altai region in central Mongolia contains outstanding geological diversity and geoheritage and is worthy of consideration for Global Geopark status under the UNESCO umbrella.

The region under consideration encompasses the southern slopes of the Hangay Dome, the easternmost Valley of Lakes and the basins and ranges of the northeastern Gobi Altai. The area is arid to semi-arid throughout with excellent rock exposures of a wide variety of igneous, metamorphic and sedimentary strata. The geology and landscape record a complex Precambrian-Quaternary geological evolution. The region is also tectonically active as expressed by Holocene fault scarps, co-seismic landslides, youthful mountain ranges flanked by aggrading alluvial fan systems, and internally drained fault-bound basins.

Within a rectangular area of approximately 30,000 km², there is a remarkable concentration and variety of world-class geological and geomorphological features in the NE Gobi Altai region that are related to: 1) active tectonics, 2) Neogene volcanism, 3) arid-land sedimentary systems, 4) dinosaur and mammal paleontology, 5) mass wasting, and 6) bedrock geology. In this presentation, I describe and show individual features in each of these categories. In addition, throughout the region, there are important geological influences on the distribution of human settlements and endangered wildlife that merit description and recognition. Mining, hydrocarbon exploration and increasing numbers of international tourists pose a growing threat to the region's unique geoheritage, spectacular natural scenery, biodiversity and traditional nomadic culture.