



Paleolakes in the Gobi region of southern Mongolia

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There are quite a lot of lakes and remnants of higher paleolakes in western and southern Mongolia. The area is known as "Valley of the Lakes", which can be divided into the "Basin of the Great Lakes" in northwestern Mongolia, and to the south between Khangai and Gobi Altai, the so-called "Valley of the Gobi Lakes". Quaternary lake levels and shorelines of varying altitude and timing are shown in geomorphological maps from (i) the Zavkhan Gol and Mongol Els in the Basin of the Great Lakes, (ii) from different regions of the Valley of the Gobi Lakes and (iii) the Bayan Tohomin Nuur and Khongoryn Nuur in the central part of the Gobi desert. 43 OSL- and 12 radiocarbon data from different archives indicate mega paleolakes around the Marine Isotope Stage (MIS) 5e and smaller lakes during MIS 3 and the early to mid-Holocene. The Last glacial Maximum (LGM) is supposed to be a dry period with low lake levels.