Holocene Environmental Change in Northern Mongolia

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This study considers regional environments in Khentii and Khuvsgul Mountainous Ranges, Northern Mongolia during the Holocene. Paleoenvironmental changes during the Holocene in Northern Mongolia have been reconstructed by preliminary study from lacustrine sedimentation in the Lake Khuvsgul catchment and peatland formation in Khentii Mountainous Range. Lacustrine sedimentation indicates the environmental evolution of the hydrologic regime and geomorphologic landform in the lake catchment system in associated with global climatic changes. Environmental evolution and sedimentary behaviors for the eastern shore of Borsog Bay of Lake Khuvsgul catchment reflect the climatic and environmental changes in the Holocene, such as warming prior to 9.5 Kyr BP, cooling and drying between 9.5-8.0 Kyr BP, warming and wetting between 8.0-5.6 Kyr BP, cooling and drying between 5.6-3.2 Kyr BP and warming from 3.2 Kyr BP to present in the Lake Khuvsgul catchment system in Northern Mongolia. The diatom assemblages including Eunotia praerupta, Pennularia subcapitata, Gomphonema brebissonii, Encyonema silesiacum and Cymbella cuspidatain valley of River Terelj show the environments of peat land during the Holocene. The diatom assemblages including Gomphonema angustatum, Stauroneis lapponica, Amphora ovalis, Amphora copulate and Cymbella cistula, in peaty mud in valley of River Tuul indicate the environment of paleo-floodplain for river valley.