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Limno-geomorphological changes during Late Pleistocene and

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Limno-geomorphological changes during Late Pleistocene and Holocene in Inner Continental Asia

This study aims to reveal limno-geomorphological changes during Late Pleistocene and Holocene on the bases of the physical and chemical analyses of the lacustrine sediments obtained from Lake Khuvsgul in Mongolian Plateau and Lake Siling-co in Tibetan Plateau. Analytical results of the sedimentary sequence in Borsog Bay of Lake Khuvsgul shows certain environmental shifts at about and 4.0 kyr BP and 6.0 kyr BP; noticeable increases are detected in grain sizes, mineral content and grain density during the periods when the organic matter, biogenic silica and diatom abundance decreased. Bottom sediments in Lake Siling-co indicates comparatively large fluctuations in hydrological conditions at a water inflow for a short-term period at about 1.5 kyr B.P and 10.0 kyr B.P, when rapid coarsening and carbonating within lacustrine deposits occurred as a result in drops of lake level. Limno-geomorphological changes in the both lacustrine catchments imply a relation with large discharge of melting water from high mountains surrounding the lakes. Although, it shows the both plateaus are differently responsible to climatic changes during the Late Pleistocene and Holocene.

Keywords: Limno-geomorphology, Late Pleistocene, Holocene, Plateaus, Mongolia, Tibet