

Long-term hydrogeomorphological changes inferred from lacustrine sediment information

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The Lake Biwa sedimentary records (200-m core and 1400-m core) cover the last 4 Myr, but detailed information is limited in the upper part of the sediment (250 m; ca. 450 ka). The information of the Lake Baikal sedimentary records used here for comparison is limited during the past 780 kyr although the records obtained until now cover the last 10 Myr. It is already reported that long and short Milankovitch cycles are printed in the lacustrine records of the two lake-catchment systems. Lacustrine information should be interpreted through geo-environmental settings. In this presentation Lake Baikal and Lake Biwa sedimentary information will be discussed in the viewpoint of long-term hydro-geomorphological fluctuation with geo-environmental settings. The sedimentary items used for discussion are grain size (sediment and mineral), organic content, bi-SiO₂ content, HCl-soluble content, and mineral content of both lacustrine sediments for the past 450 kyr and 780 kyr, respectively. Common and different trends for the both systems will be discussed.

Keywords: long-term hydrogeomorphological changes, lacustrine sediments, lake-catchment system