

Lake-level change of Lake Biwa by sequence stratigraphical analysis of acoustic record of uniboom.

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Sequence stratigraphic study was carried out on acoustic records of Uniboom in Lake Biwa. Based on distribution patterns of remarkable reflectors and weak reflectors at eastern side of the lake, seven sedimentary systems tracts are recognized, namely, from 1 to 7 in descending order.

Systems tract 1: Upper limit of accommodation space is lowering. Down stepping of sediments can be observed.

Systems tract 2: Back-stepping pattern, which means landward shifting of deposition, can be observed.

Systems tract 3: Down-stepping sediments in limited accommodation space can be observed.

Systems tract 4: Clinofolds which means offshore shifting of sedimentation can be observed. At eastern side of this systems tract, undulations probably caused by erosion exist.

Systems tract 5: Back-stepping is remarkable. Conformably overlies remarkable reflector which is correlated to well known AT tephra (29 kyr BP).

Systems tract 6: Conformably overlain by AT tephra and underlain by systems tract 7. Remarkable back stepping can be observed.

Systems tract 7: Chaotic patterns, which mean existence of gravelly sediments, are observed. This systems tract is correlated to widely distributing buried terrace in Lake Biwa.

Three remarkable reflectors are correlated to wide spread tephra horizons, which are, AT, U-Okii (11ka) and K-Ah(7.3ka) in ascending order.

Based on above mentioned results, lake level curve during the past 30ka was delineated which shows negative correlation with that of SPECMAP.