

## Climate change history of the last 45ka of Lake Biwa based on grain size and TOC, TN of BWK12-2 piston core

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Based on newly established age model of BWK12-2 piston core sediment, obtained near the Off Takashima drilling station in Lake Biwa, Japan and with about 30 C-14 dates and well dated wide spread tephra, we analyzed grain size and total organic carbon (TOC) and total nitrogen (TN) contents of the sediment. Analyzing interval of those sediments were, 4cm to grain size and 2cm to TOC and TN whose time resolutions were 30 to 120 years and 15 to 60years respectively. Comparison with Marine Isotope Stage profile shows distinct resemblance to MIS1, however, difference between MIS2 and MIS3 is not clear. On the other hand, abrupt cooling events, such as Heinrich events and Younger Dryas, are clearly recognized. Abrupt warming, such as Dansgaard Oeschger events are not clearly recognized.

Keywords: Lake Biwa, sediment, paleo climate, grain size, TOC, TN