

## Comparison between physical properties of bottom surface sediments and meteorological observation data of Lake Biwa

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Lake sediments are regarded as to preserve from environmental information of their areas and their surroundings to information of climate system on a global scale in long term. Lake Biwa, in particular, has a long stable depositional history of more than 400,000 years. Various kinds of researches have been conducted based on scientific drilling to reconstruct the history of environmental changes of the lake. However, work of correlation between analytical data and those of meteorological observation data is very few. This study aims to elucidate the correlation of meteorological observation data with physical property value of surface layer sediment from Lake Biwa.

The density of sediment shows negative correlation with the warm season average (from spring till autumn) temperature and positive correlation with the cooling season (from autumn till spring) average wind velocity. The density of sediment shows strong negative correlation with the number of diatom frustules. Especially, number of diatom frustules increases at warm climate in March. In March, there was spring bloom phytoplankton. Therefore, temperature is one of the influencing factors of density of sediment.