Correlation between physical properities of bottom surface sediments of Lake Biwa and meteorological observation data.

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[1] none

In general, lake bottom sediment continuously records histories of environmental changes in long term. Lake Biwa has a long depositional history of more than 400,000 years. Many researches have been carried out based on academic scientific drillings which records paleoenvironmental changes of Lake Biwa. However, studies of correlation between analytical data and those of meteorological observation have not been carried out. This study clarifies the result of correlation between physical properties of bottom surface sediments in Lake Biwa and meteorological observation data around near Lake Biwa.

The results show that the variations of particle density have negative correlation to the average temperature and have positive correlation to the average winter wind velocity. Diatom, whose frustules control mean grain density of sediment, increase at spring and autumn depending on average temperature. Mineral particles of eolian dusts, which also control mean grain density of sediment, are transported to Japan by winter monsoon. Average temperature at spring and autumn, and average wind velocity at winter are the main controlling factors of particle density of sediment.