

Environmental history of Lake Kasumigaura during the last 600 years

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Environmental history of Lake Kasumigaura during the last 500 years is clarified based on the result of grain size analysis and total organic carbon, total nitrogen and total sulfur contents of cored sediment taken at the central part of Lake Kasumigaura. Age controls used are Asama-A tephra of 1783 AD, Fuji-Hoei tephra of AD 1707 and carbon-14 date of *Corbicula japonica* fossils. Profiles of grain size and element contents versus age show that the closed lake condition developed gradually until the eruption of Mt. Fuji in 1707 and further developed after the eruption of Mt. Asama in 1783. Former studies showed that the closing of the lake condition developed gradually owing to the wide interval of sampling, however, the result of this study shows that the change of lake environment was very short period. The reason for abrupt environmental change was caused by the rapid burial of the inlet of lake with volcanic materials which flew from river Tone. This caused decrease in changing waters of the lake and that from the Pacific Ocean.

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