

Reconstruction of change of salinity condition since the middle Holocene in the Lake Jusanko, northeastern Japan

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The Lake Jusanko is a lagoon which is located in northern limit of Honshu Island in Japan. This lake is one of the most famous lake for producing *Corbicula japonica* in East Asia. The lake has an area of 17 km², and 2 meters in maximum depth. The purpose of this study is to reconstruct the salinity condition changes in the Lake Jusanko based on the analyses of diatom, facies, and AMS¹⁴C dating.

The result of this study indicates that the study area submerged related to postglacial transgression in the early Holocene. After the transgression, this area changed the sea. Consequently the lake had been buried by delta deposit transported by the River Iwaki and the River Yamada. Based on diatom analysis, the Lake Jusanko had been freshwater condition during 5700-1000 cal BP, and lagoonal brackish lake has been formed since 1000 cal BP in central part of the Jusanko. In the upper part of the Lake Jusanko (near the river mouth of Iwaki and Yamada rivers), we can confirm that the change of salinity condition was similar to the change in the central part. However, the period of the environmental change from brackish to fresh water has started earlier compare to central part of the lake.

Keywords: Holocene, the Lake Jusanko, salinity condition