Depth variation of diatom assemblages in surface sediments off estuary of Echi River , Lake Biwa

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We investigated the diatom assemblages in surface sediment samples from the lake bottom from 5m depth to 30m depth off estuary of Echi River, Lake Biwa. The number of valves and frequency in surface diatom assemblages indicates that they are characterized by depth variation. In particular, the number of valves is characterized by remarkable increasing between 20m depth and 25m depth. And frequency of each species is characterized by remarkable decreasing of benthic and attached diatoms between 5m depth and 20m depth. Sand contents in the same samples indicates that depth variation of diatom assemblage may relate to sand contents of surface sediments. We expect that more detailed investigation of the relationship between diatom assemblage and lake depth will contribute to the reconstruction of freshwater paleoenvironments.

Keywords: Lake biwa, Off estuary of Echi River, Diatom assemblages, Water depth, Surface sediments, sand contents