

## Preliminary reconstruction of lake-level changes during the last 50 ka based on fossil diatom assemblages in Lake Biwa

\*Takashi Suzuki<sup>1</sup>, Yoshio Inouchi<sup>2</sup>, Keisuke Otsuka<sup>1</sup>, Kaoru Kawakami<sup>3</sup>

1. Graduate School of Human Science, Waseda University, 2. Faculty of Human Sciences, Waseda University, 3. Department of Human Sciences, Waseda University

This is a preliminary report of a research for reconstruction of lake-level change history of Lake Biwa based on the transfer function of diatom assemblage into water depth made from those of surface sediment. We investigated diatom assemblages, sand content, and C/N ratio in drilling core sample from the lake bottom and surface sediment samples from the lake bottom from 5 m to 30 m in depth off estuary of Echi River, Lake Biwa.

Rate of planktonic species of diatom assemblage in the surface sediment vs water depth can be changed into the transfer function of water depth. The transfer function applied to drilled sediment from Lake Biwa into lake-level change history during the last 50 ka. And a comparison based on rate of complete valves of diatom assemblages (%), number of valves per gram of diatom assemblages (valves/g), sediment structure, sand content (%), and C/N ratio indicates that these proxies can remove the noise of reconstruction of lake-level changes like flood sediments.

Keywords: Lake Biwa, planktonic diatom, transfer function, lake-level change, sand content, C/N ratio