

## Transfer function from sand content to paleo water depth of Lake Biwa

Yoshio Inouchi<sup>1</sup>, \*Yoshiki Terada<sup>2</sup>

1.Faculty of Human Sciences, Waseda University, 2.School of Human Sciences, Waseda University

One hundred and twenty bottom surface sediments have been obtained along the coastal area of Northern Lake Biwa from the river mouth of Echi to off Hikone city. Each sand contents were analyzed by sieving. We made a transfer function of sand contents to paleo water depth based on sand content at each station and its sampling water depth.

In general, sand contents are more than 90% in areas shallower than 5m and less than 50% in areas deeper than 10m, that is, sediments change from sandy to muddy at areas deeper than 10m. In addition, sand contents become less than 10% at areas deeper than 18m. However, areas off river mouth of Echi and Yanagawa town, sediment show relatively higher sand content than other areas. Based on these data of sand contents and water depth, we found third order approximation and made it as a transfer function. Based on this transfer function and sand content data of drilled core obtained at northeastern part off river mouth of Echi, we plan to clarify paleo water level change history of Lake Biwa.

Keywords: Lake Biwa, Lake level change , sand content