

## Flood sediment off rivermouth of Echi-gawa, Lake Biwa, Japan

Yoshio Inouchi<sup>1</sup>, Yasuhumi, Satoguchi<sup>2</sup>, Yuki, Nakamura<sup>3</sup>, Takayuki Murakoshi<sup>4</sup>, Gaku Hashimoto<sup>5\*</sup>

<sup>1</sup>Faculty of Human Sciences, Waseda University, <sup>2</sup>Lake Biwa Museum, <sup>3</sup>Atmosphere and Ocean Research Institute, <sup>4</sup>Graduate School of Human Sciences, Waseda University, <sup>5</sup>School of Human Sciences, Waseda University

Water content, grain size and total carbon and nitrogen content were measured with cored sediment taken by gravity corer off river mouth of Echi-gawa, at the south-eastern part of Lake Biwa, Japan. The result shows existence of event sediments which show characteristics of hyperpycnite.

Sediment cores were taken 1.5km off river mouth of Echi-gawa on 12th September 2011 and the length were 50cm and 69cm respectively. Water content was measured at each 1cm, grain size at each 5mm and total carbon and total nitrogen was measured at each 5mm depth. The result shows existence of several event layers which are dark in soft-X photos, lower water content, coarser grain size and higher content of total carbon and total nitrogen. Each event layers show reverse grading at bottom and normal grading on top, have several maxima in grain size and contain plant fragments.

Carbon-14 age at the middle part of B3 core was 50 to 100 yrs.BP. Consequently, the age of cored sediments is around 100 years BP. During the last 100 years several historic large floods are recorded, namely, large flood in 1896 and 1917.

Keywords: Lake Biwa, flood sediment, hyperpycnite