

Reconstruction of paleo earthquake intensity

INOUCHI, Yoshio^{1*} ; OKUMURA, Yuka² ; NAMEKI, Katsuhiko³

¹Faculty of Human Sciences, Waseda University, ²School of Human Sciences, Waseda university, ³Graduate School of Human Sciences, Waseda University

Many drastic earthquakes have been occurred historically in Japan. In order to reduce damages caused by those earthquakes, data concerning frequency, magnitude and influenced areas of each earthquake are inevitable. Here, we report measuring method of paleo intensity of historic earthquakes at arbitrary selected stations based on empirical formulas. Based on data regarding position of epicenter and magnitude of each paleo earthquake, intensity of paleo earthquake at arbitrary site is estimated. At the beginning, these data were used to recognize earthquake triggered turbidites at several lakes. The results show that lower threshold of triggering turbidites are 45gal in Lake Biwa and 79gal in Lake Inawashiro, respectively. Usage of this kind of method will enable us to reconstruct paleo earthquake data which have no written record.

Keywords: paleo earthquake, intensity of quake, sediment