

Temporal distribution in diatom assemblages from coastal area in Western Japan: The usability of diatom assemblages as a

HIROSE, Kotaro^{1*}, YOSHIOKA Kaoru², SAKO Megumi², IRIZUKI Toshiaki², SETO Koji², YASUHARA Moriaki³

¹Fukushima University, ²Shimane University, ³The University of Hong Kong

Diatom assemblage in sediment core is a useful proxy for dynamics of aquatic environment. However, more information about taxonomy, habitat, and taphonomy are required for coastal diatoms. Therefore, we investigated the relationship between temporal change of diatom assemblage and anthropogenic impacts (e.g., pollution, environmental protection) recorded in sediment cores from Western Japan, and discuss the usability of diatoms as a proxy of human-induced environmental changes. In Osaka Bay, diatom assemblages in three drilling core samples are classified into two indicator species-groups, i.e., assemblage 1 showing positive correlation, and assemblage 2 showing negative correlation between their valve abundance and human-induced eutrophication, respectively. In our presentation, we will discuss if these indicator species-groups are useful as proxies for human-induced eutrophication in broader area of Japan including Harima-Nada, Suo-Nada, and Lake Nakaumi, as well as Osaka Bay.

Keywords: diatom assemblage, coastal area, proxy, anthropogenic impact, eutrophication, Western Japan