

Global synchronicity of Quaternary calcareous nannofossils datums between North Atlantic and Northwestern Pacific Oceans

CHIYONOBU, Shun^{1*}, DOMITSU, Hanako², SATO, Tokiyuki³

¹RITE, ²The University of Shiga Prefecture, ³Akita University

Quaternary calcareous nannofossil datums and their chronostratigraphic framework have been discussed over the last 20y mainly based on their correlation to magnetostratigraphy or oxygen isotope stratigraphy (e.g. Raffi and Rio 1979; Thierstein et al, 1977). These studies indicate that Quaternary nannofossils datums show a small diachroneity between different latitudes and Oceans. Some studies indicated diachroneity were thought to be causally related to discontinuity coring or low resolution study because of low sedimentation rate.

We studied high-resolution Quaternary calcareous nannofossils biostratigraphy to clarify the relationship between nannofossils events and oxygen isotope stratigraphy using the continuous sediments sequence from Integrated Ocean Drilling Program (IODP) Site U1308 in the North Atlantic Ocean and IODP Site C9001C in the Northwestern Pacific Ocean (off the Shimokita Peninsula). We clarify the critical stratigraphic positions of both the first occurrence of *Emiliana huxley* and the last occurrence of *Pseudoemiliana lacunosa* between Site 1308U and Site C9001C. The *P. lacunosa* extinction is just below the highest peaks of marine isotope stage (MIS) 12, whereas the first occurrence of *E. huxley* has also a just below the highest peaks of MIS 8. Results show the global synchronicity of calcareous nannofossil evolutions between different latitudes and Oceans.

Keywords: calcareous nannofossil, biostratigraphy