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Preliminary results of paleoceanographic study of IODP Expedition 334

OHKUSHI, Kenichi^{1*}, Paola Vannucchi², UJIIE, Kohtaro³, IODP Expedition 334 Scientific Party⁴

¹Kobe University, ²University of Florence, ³University of Tsukuba, ⁴Texas A&M University

The East equatorial Pacific marginal sea off Costa Rica is one of the most important region to understand latitudinal shift of Intertropical Convergence Zone (ITCZ) and ventilation changes in intermediate waters of south or north origin during the Quaternary. We successfully obtained excellent sediment core samples from the upper slope and continental self off Costa Rica during Intergrated Ocean Drilling Program (IODP) Expedition 334 (Costa Rica Seismogenesis Project; CRISP) of the D/V Joides Resolution. In these cores, we selected cores U1378B and U1379C as reasonable cores for our Quaternary paleoceanographic study. Now we are analyzing benthic foraminiferal assemblages, organic carbon contents, and Corg/N ratio from these cores. Moreover , we will analyze foramniferal oxygen isotope ratio and carbonate content in core U1378B to construct the isotope stratigraphy and reconstruct intermediate water ventilation changes related with glacial- interglacial climate shift. The preliminary results of biostratigraphic ages obtained from core U1378B indicate high sediment accumulation rate of about 283-296 m/my in the upper 34-35m. The result is based on the extinction horizon (120 kyr) of planktonic foraminifera Globigerinoides ruber (pink specimens). Thus, the sedimentary horizon would correspond to the peak last interglacial event of marine isotope stage 5. We will report on preliminary results of paleoceanographic analyses in these cores. We thank IODP cruise staff for their kind support during the CRISP cruise.