

Mg/Ca-based temperature variations across the L-M Pleistocene Boundary in the Chiba composite section, central Japan

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The Kuroshio Current, a western boundary current in the North Pacific, transport warm saline waters from low- to high-latitude and thus plays a crucial role in heat transport in the mid-latitude. Around 0.8 Ma, near the L-M Pleistocene boundary corresponding to the Matuyama-Brunhes boundary (MBB), is the one of the key time period to understand initiation of 100-kyr glacial-interglacial climate cycle. The Chiba composite section, including the Tabuchi section as a L-M Pleistocene boundary GSSP candidate, is a continuous marine sedimentary succession exposed in the Boso peninsula, central Japan. The MBB is well defined based on virtual geomagnetic pole (VGP) latitudes in this section and an age model is determined based on benthic foraminiferal oxygen isotope record. The site of this section (35°N) is located in the mixing zone (35°N - 40°N at present) of warm Kuroshio and cold Oyashio waters. Thus, temperature changes in the site can be interpreted as reflecting the latitudinal shift of the Kuroshio-Oyashio boundary, which could be related to the Kuroshio variations and also impact on the heat transport in the mid-latitude. Here, we present Mg/Ca records of planktic foraminifera *Globigerina bulloides* and *Globorotalia inflata* in the Chiba section and reconstruct surface and subsurface water temperatures across the Matuyama-Brunhes Boundary. Preliminary results suggest that the average surface temperature was 18-19 °C during the time interval from 780-740 Ka. The higher time resolution (~0.5-1 ky) surface and subsurface water temperatures will be presented and discussed by comparison with the oxygen isotope data.