

## Geochemical Evidence for Variations of Northwest Pacific Subarctic Front during the late Quaternary

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We investigate the late Quaternary hydrography of NW Pacific to clarify how it was sensitive to the past climate changes. The sediment core taken from Suiko Seamount (44°47.2'N, 170°09.6'E, Water Depth: 1784m), located at midpoint of Emperor Seamount chain, was used for reconstructing sea surface temperature (SST) change and consequent variations of Northwest Pacific Subarctic Front. Foraminiferal  $\delta^{18}\text{O}$ , Mg/Ca ratio and alkenone SST indicate that this site was situated under influence of subtropical water at Marine Isotope Stage 9-11. Average SST difference between the last glacial cycle and MIS 9-11 was as much as 5 degree centigrade, indicating poleward shifting of NPSF at MIS 9-11. Slightly heavier values of planktonic  $\delta^{13}\text{C}$  (*G. bulloides*) at MIS 9-11 also imply the presence of warm subtropical water in this region. This warming at MIS 9-11 coincides with the period of high carbonate accumulation previously reported in NW Pacific. After MIS 8, subpolar water was gradually advanced into equatorward, and supply of ice-rafted materials was accelerated in this region.