

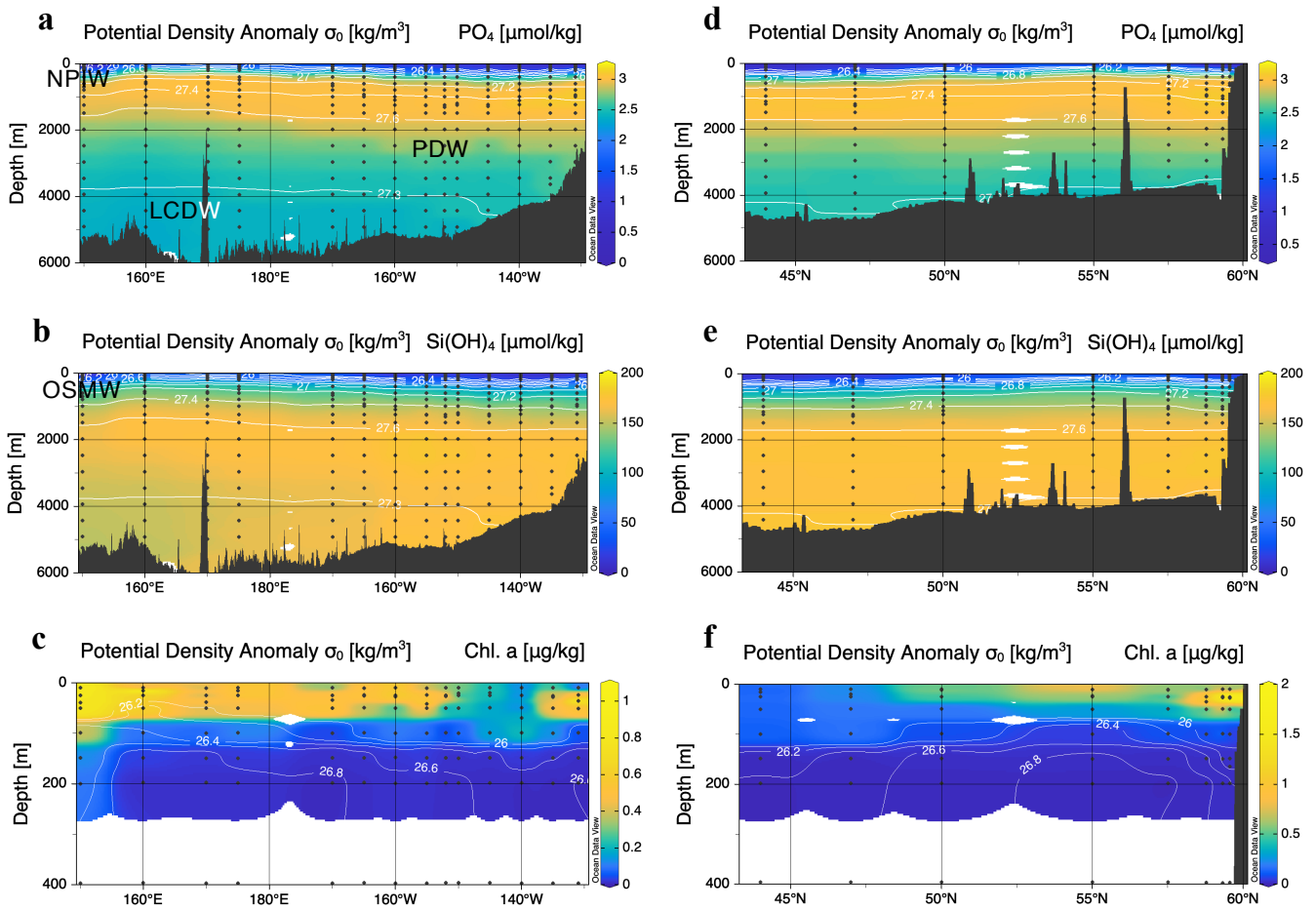
**The Behaviour of Nickel, Copper, Zinc, and Cadmium in
the Subarctic Pacific Ocean: East–West Differences**

Journal of Oceanography

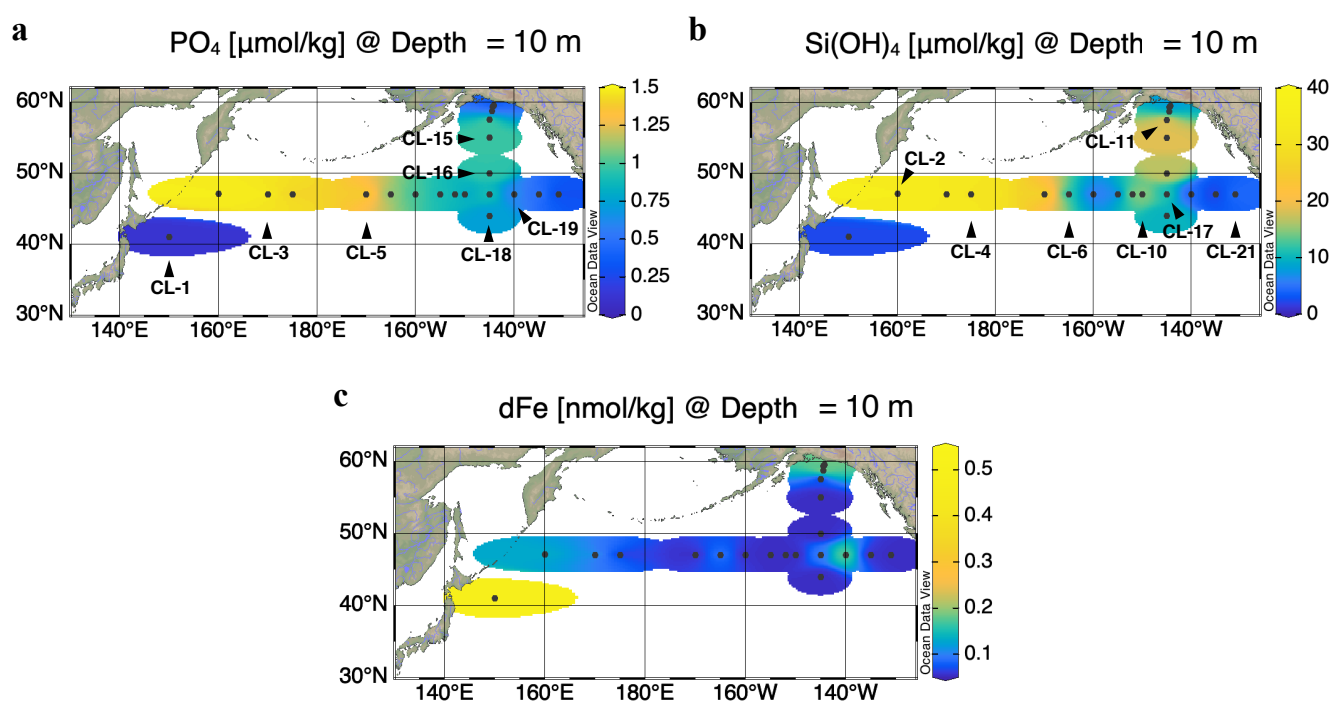
*Cheuk-Yin Chan, Linjie Zheng, Yoshiki Sohrin

Institute for Chemical Research, Kyoto University, Uji, Kyoto 611-0011, Japan

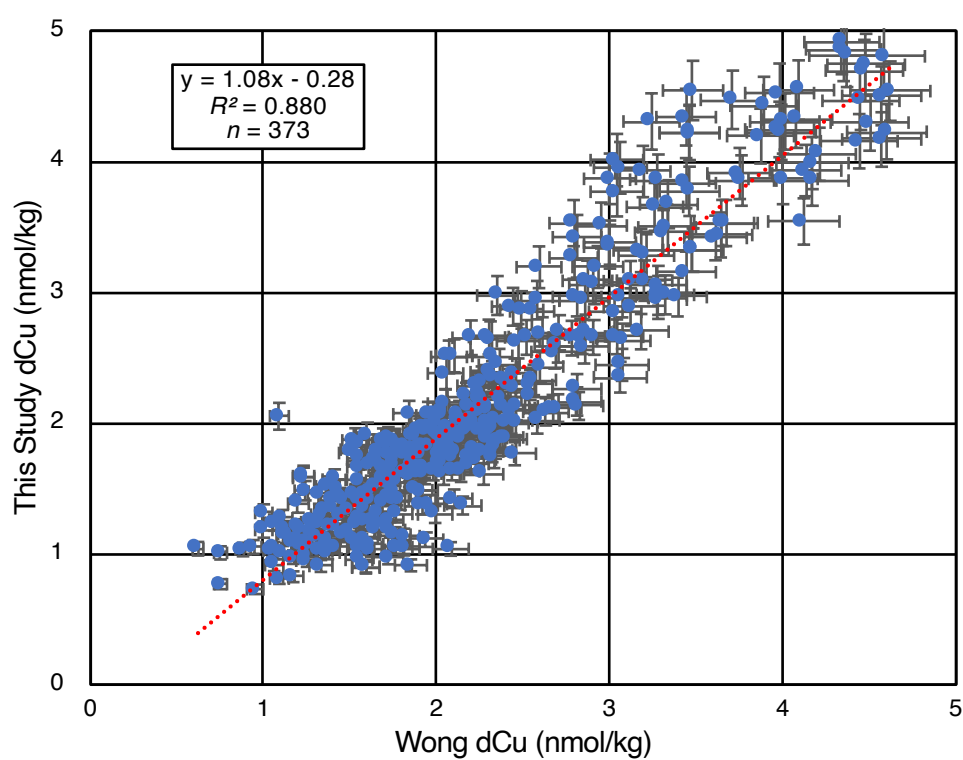
*Corresponding author. Email address: chan.cheukyin.78s@st.kyoto-u.ac.jp



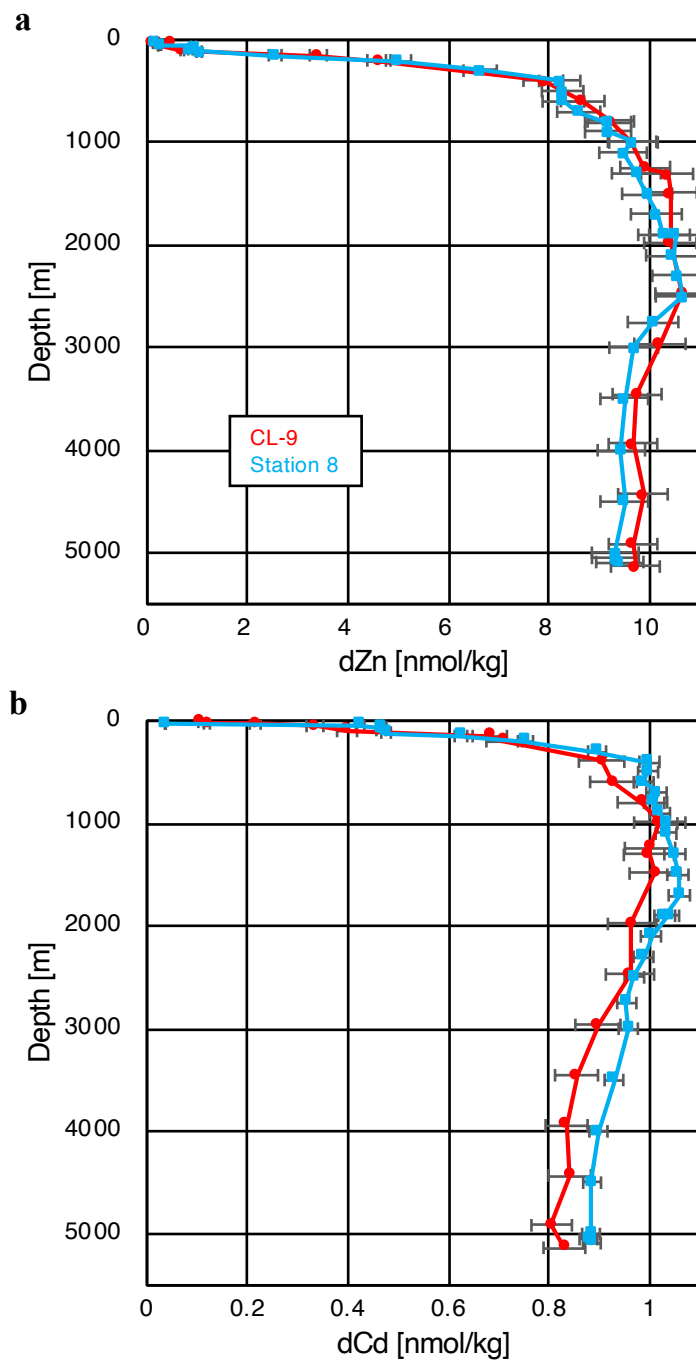
Supplementary Fig. 1 Sectional distribution diagrams of phosphate, silicate and chlorophyll *a* along (a-c) 47°N and (d-f) 145°W. LCDW: Lower Circumpolar Deep Water; PDW: Pacific Deep Water; OSMW: Okhotsk Sea Mode Water, NPIW: North Pacific Intermediate Water



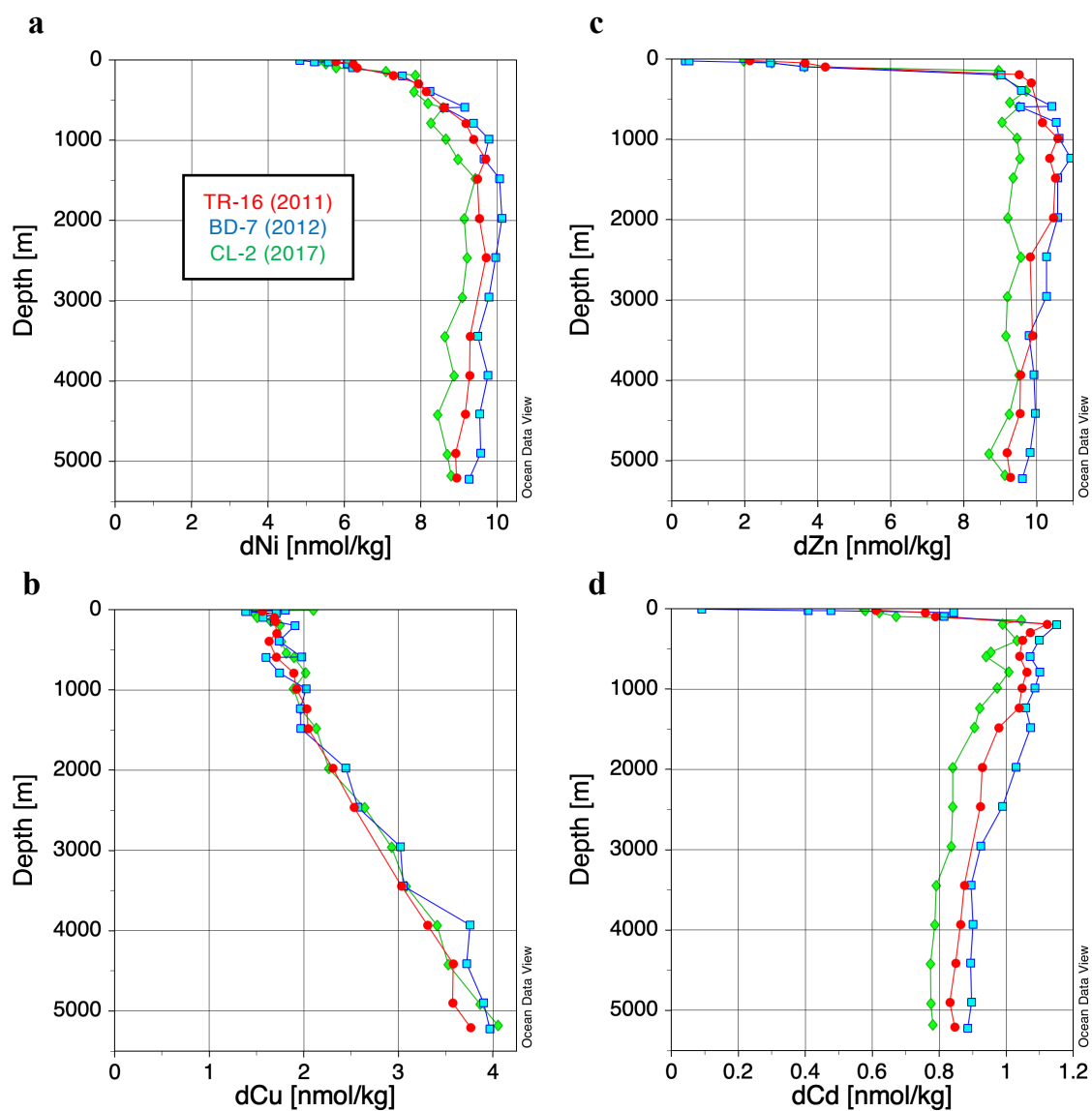
Supplementary Fig. 2 Horizontal distributions at 10 m depth. The dFe data were adopted from Chan et al. (2024)



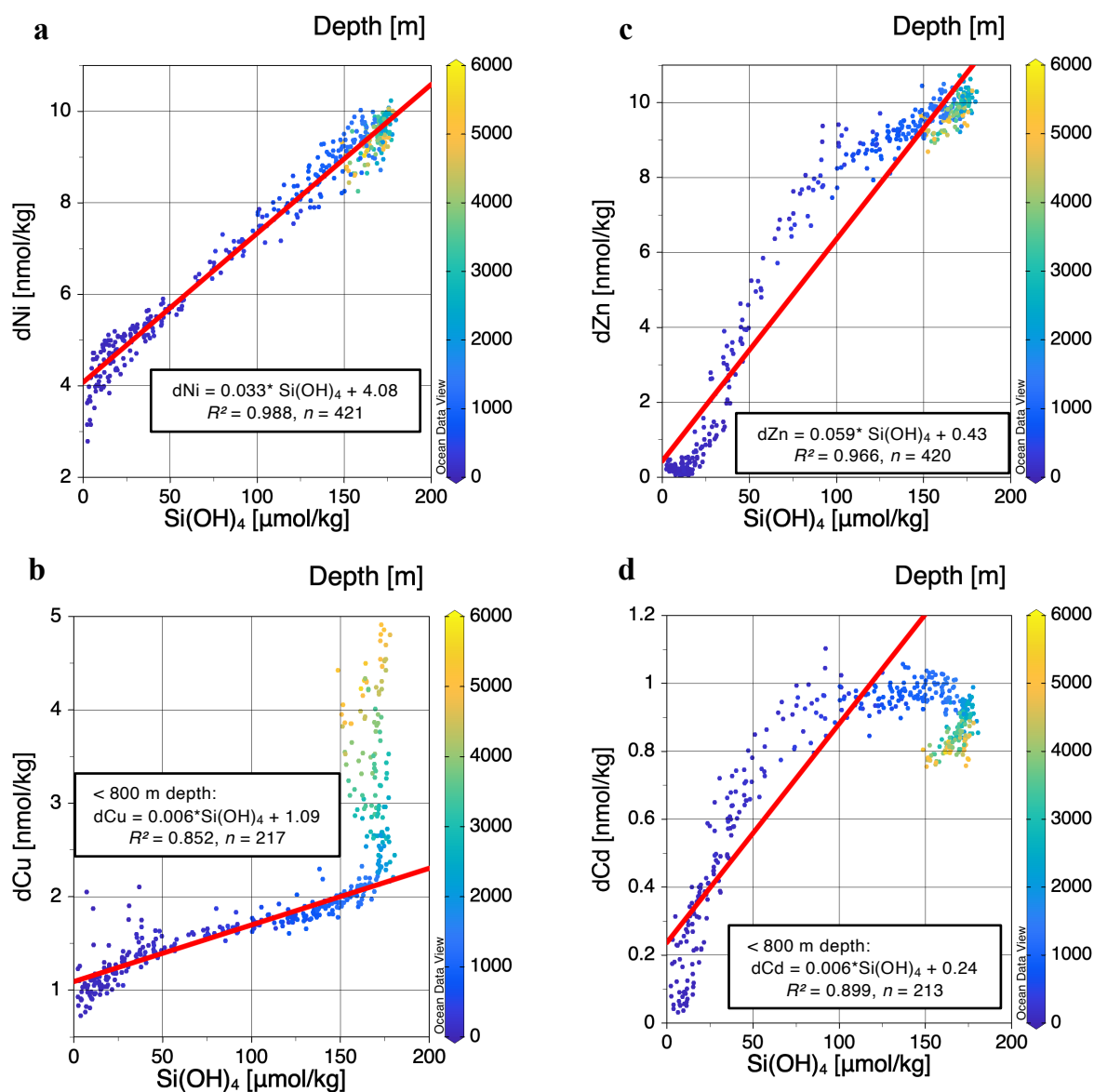
Supplementary Fig. 3 Comparison of dCu data reported by Wong et al. (2021). Error bars show 1 SD of the value



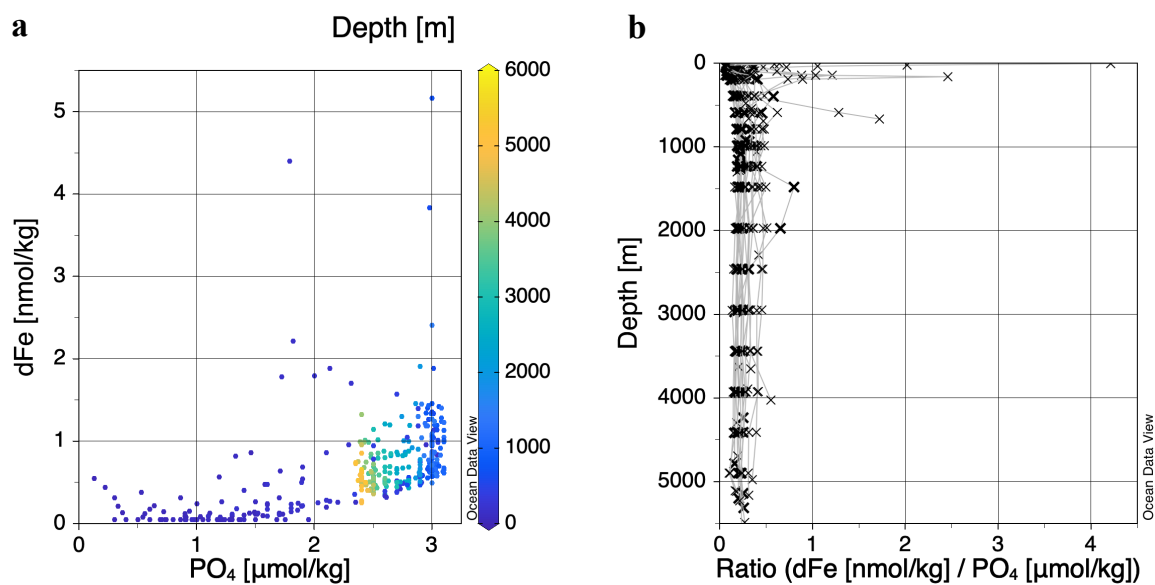
Supplementary Fig. 4 Comparison of the vertical distributions of dM at station CL-9 (red dots) and at station 8 of the GP15 expedition (blue squares). Error bars represent 1 SD. Data of station 8 were adopted from Sieber et al. (2023)



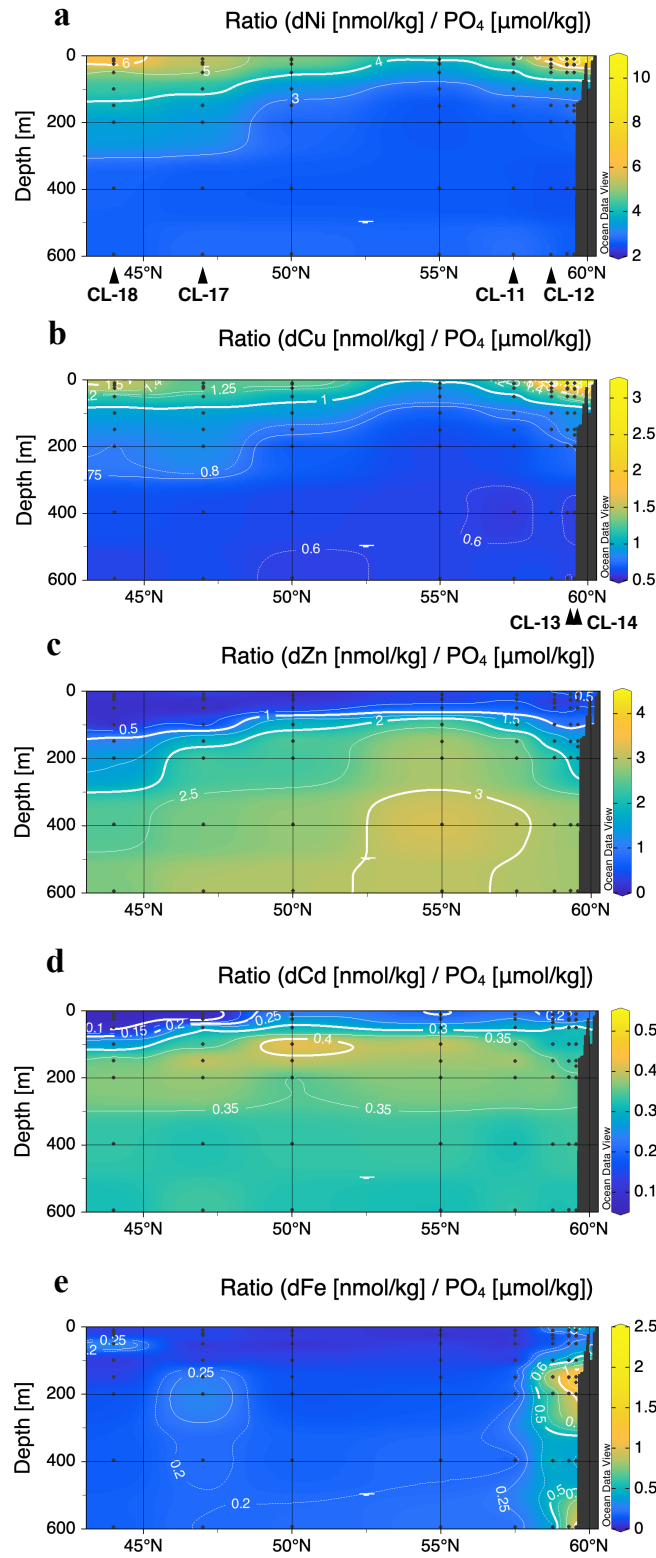
Supplementary Fig. 5 Comparison of the vertical distributions of dM at stations TR-16 (red dots), BD-7 (blue squares) and CL-2 (green diamonds)



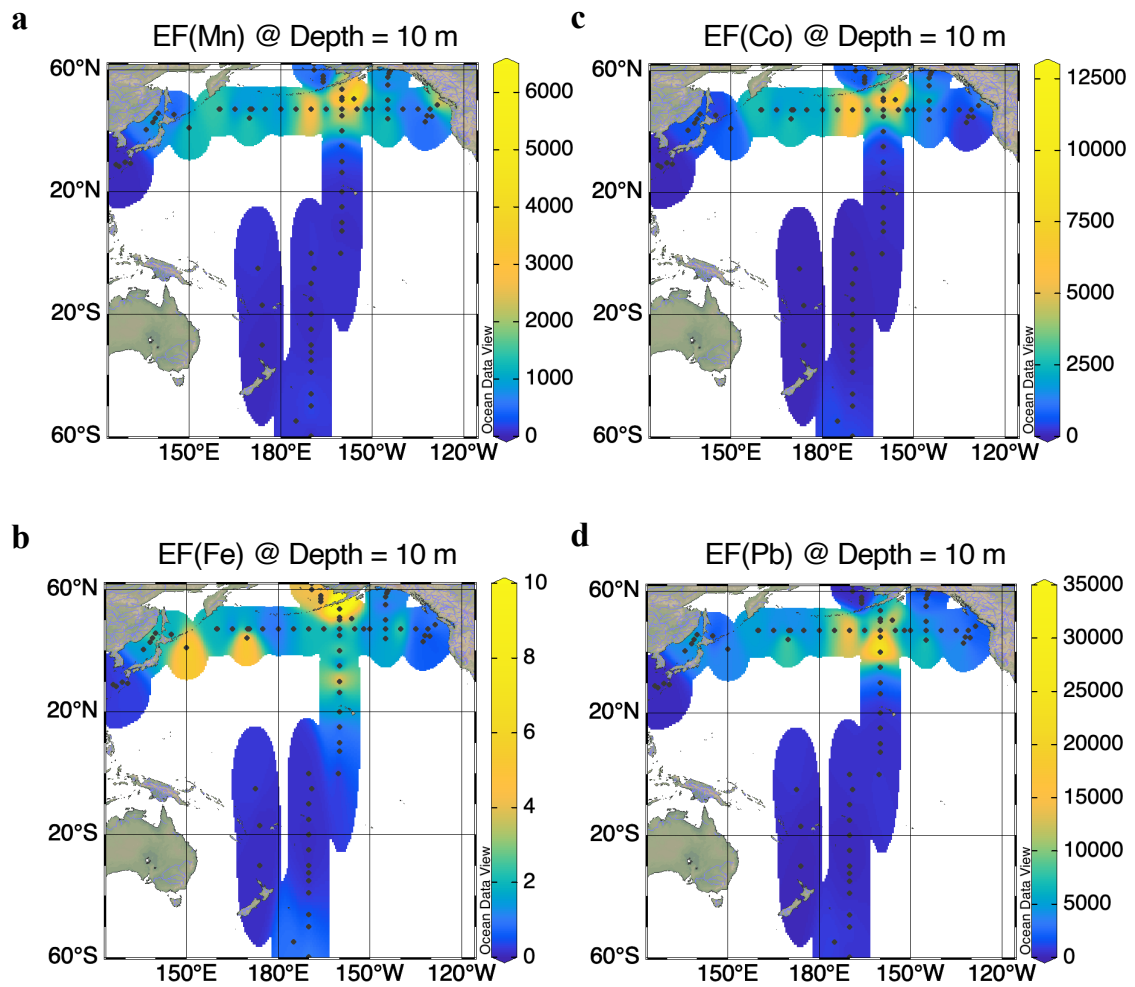
Supplementary Fig. 6 Plots of dM versus silicate. The dot colour represents sampling depth. The red lines represent regression lines



Supplementary Fig. 7 (a) Plot of dFe versus phosphate. The dot colour represents sampling depth. (b) Vertical profiles of the dFe/PO₄ ratio at all stations in this study



Supplementary Fig. 8 Sectional distributions of the dM/PO₄ ratio in the upper water along 145°W meridional transect



Supplementary Fig. 9 Horizontal distributions of the enrichment factor $EF(dM)$ at 10 m depth in the Pacific Ocean and marginal seas. Data of the Bering Sea, the East China Sea, the Seas of Japan and Okhotsk, and the Pacific Ocean were adopted from Cid et al. (2011), Nakaguchi et al. (2020), Nakaguchi et al. (2022), Zheng et al. (2019), and Zheng et al. (2024), respectively