

Climate and environmental changes at ODP site 1151 in the western North Pacific Ocean during the last 200 ky.

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ODP site 1151 is located off Sanriku and is characterized by high productivity caused by collision of Kuroshio and Oyashio. Because the area is also influenced by high detrital input, the sediment core enables us to reconstruct high-resolution history of sea surface and terrestrial environments. We examined the temporal variation in the contents of alkenones, major elements, TOC, TON and TS in the hemipelagic sediments during the last 20 ky. The results show that the concentration of alkenones and alkenoates vary in harmony with the glacial-interglacial cycles, while UK'37 exhibits an irregular variation. Detailed examination of relative contribution from alkenones suggests that UK'37 is highly affected by the change in coccolithophorid assemblages rather than the SST in this area.