Environmental changes around MIS 11 deduced from the TOC of sediment core off the Shimokita Peninsula, northwest Pacific

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We analyze total organic carbon (TOC) and total nitrogen contents of the marine sediments core (CK06-06 C902-9001C) around the marine isotope stage 11 taken from off the Shimokita Peninsula, northwest Pacific. The analysis was preformed for the sediment of 2 cm interval alternately. The TOC content varies from 0.6 to 1.8 % with quasi-periodically. This fluctuation of TOC content well corresponds with insolation curve of mid-summer at N 40 degree during the same period, as high TOC with high insolation value. TOC value of the marine sediment off the Shimokita Peninsula seems to be controlled by the position and intensity of the mixed-water between the cold Oyashio and warm Kuroshio currents off the Sanriku Coast, northeast Japan. Therefore, TOC content can represent the strength of Kuroshio current controlled by the summer insolation value of northern mid-latitude region. Additionally, the TOC fluctuation of the last 25 ka in the same area is very similar to that of this core from 425 to 400 ka. This fact suggest that TOC content of the core sediment during MIS 11 may be an proxy of the future environmental change in the area off the Shimokita Peninsula, northwest Pacific