

Paleoceanography during the Late Pliocene in the Nishikubiki area, Niigata Prefecture, central Japan

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The relative sea level positions, presumed from third-order depositional sequence in the Pliocene strata, Nishikubiki area, Niigata Prefecture, coincide with the oxygen isotope curve. Analysis of diatoms and calcareous nanno planktons have revealed that the surface water might be warmer in the Nishikubiki area at 3.5Ma and the water became colder in this sea at about 2.7Ma. Relative sea-level was rising at 3.5Ma and it is considered to be a response to the global warming. These results suggest that the environmental change including relative sea level positions and surface water temperature were affected by the global climatic change.