

Sea level changes across the Cenomanian/Turonian boundary in Hokkaido

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The Cenomanian/Turonian (C/T) boundary is a typical Oceanic Anoxic Events (OAEs) during mid-Cretaceous. The relation between the C/T-OAE and the sea level changes has been discussed by many, but their exact relationship is still not understood. In this study, the depositional depth changes are reconstructed for the shallow-marine sequence in Mikasa, Hokkaido. Because the C/T boundary is not well constrained in Mikasa sequence due to rare fossil occurrences, the sequence was correlated with the hemipelagic sequence in Oyubari, where the boundary is well constrained by bio- and isotope-stratigraphies, using the assemblage of detrital grains. The result suggests gradual regressions in the late Cenomanian, an abrupt regression in the early Turonian, and a transgression in middle Turonian.