Late Cenomanian cyclic environmental changes in Oyubari and their association with the Cenomanian/Turonian boundary event

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It has been considered that oceanic anoxic events [OAEs] repeated during mid-Cretaceous, however cause of the OAEs is not well understood. In this study, the turbidite frequency and burrow types are examined around the Cenomanian/Turonian boundary in the Oyubari in order to reconstruct the sea level changes and oxygenation levels of the bottom water. The turbidite frequency exhibits cyclicities of 2-3m and 10m scale within 200m below the boundary and the burrow type also shows similar fluctuations. The decrease in turbidite and dramatic change into the oxygenated bottom water condition occur at the boundary. The observed cyclicities suggest the presence of the unstable polar ice waxing and waning during the latest Cenomania which disappeared and caused the transgression at the boundary.