

完新世北西太平洋中・深層水循環変動の復元—南大洋深層水形成強化が原因か？  
A Southern Ocean trigger for Northwest Pacific ventilation during the Holocene?

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Holocene ocean circulation is poorly understood due to sparsity of dateable marine archives with submillennial-scale resolution. Here we present a record of mid-depth water radiocarbon contents in the Northwest (NW) Pacific Ocean over the last 12,000 years, which shows remarkable millennial-scale variations relative to changes in atmospheric radiocarbon inventory. Apparent decoupling of these variations from regional ventilation and mixing processes leads us to the suggestion that the mid-depth NW Pacific may have responded to changes in Southern Ocean overturning forced by latitudinal displacements of the southern westerly winds. By inference, a tendency of in-phase related North Atlantic and Southern Ocean overturning would argue against the development of a steady bipolar seesaw regime during the Holocene. This study was also published in Scientific Reports.

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