

## Ventilation change in the southern Bering Sea since the last glacial maximum

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From the last glacial maximum to the early deglacial period between 18 and 15 ka, corresponding to Heinrich Stadial 1, well-ventilated watermass down to ~2000 m was reconstructed in wide are of the western North Pacific. The potential ventilation sources are the Bering Sea and the Okhotsk Sea, both are marginal seas of the subarctic Pacific. To constrain the ventilation source, we reconstructed the ventilation record of deep water at 2400 m depth on the Bowers Ridge in the southern Bering Sea. over the past 25 kyr from radiocarbon measurements of coexisting planktic and benthic foraminiferal shells in sediment. Sediment core BOW-9A was obtained during KH99-3 cruise by R/V Hakuho-maru in summer 1999. The  $\Delta 14C$  changes were consistent with the atmospheric record, suggesting that no massive mixing of old carbon from the abyssal reservoir occurred throughout the glacial to deglacial periods. During Heinrich stadial 1, the  $\Delta 14C$  activity did not show enhanced ventilation during the early deglacial period between 18 and 15 ka, corresponding to Heinrich Stadial 1. This suggests that the early deglacial ventilation source of the North Pacific was not the Bering Sea but the Okhotsk Sea.

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