

Oxygen concentrations of intermediate water in the eastern equatorial Pacific since the last interglacial

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Proxy records from the Pacific Ocean suggests opposing trends in oxygen changes since the last glaciation. Whereas glacial intermediate waters (>1.3 km) became less oxygenated during the deglaciation/Holocene, deeper waters (<1.8 km) became better oxygenated, releasing respired carbon back into the atmosphere [1].

Here changes in oxygen concentrations at an intermediate water depth (1.36 km; Site ODP 1242) from the eastern equatorial Pacific are assessed since the last glacial inception. Using the carbon isotope gradient between bottom water and pore water at the anoxic boundary, inferred from benthic foraminifera [2], quantitative estimates of intermediate water oxygen concentrations will be presented. Through this new record I will examine the hypothesis that enhanced rates of overturning circulation in the North Atlantic during the glacial inception [3] led to better oxygenated intermediate waters in the Pacific.

- [1] Jaccard & Galbraith (2012) *Nat. Geosc.* **5**, 151-156.
[2] Hoogakker, Elderfield, Schmiedl, McCave & Rickaby (2015) *Nat. Geosci.* **8**, 40-43. [3] Guihou, Oichat, Govin, Nave, Michel, Duplessy, Telouk, & Labeyrie (2012) *Quat. Sci. Rev.* **30**, 1576-1582.