

# Ocean carbon uptake more variable than thought

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The Earth's oceans are thought to have taken up about one quarter of the carbon dioxide (CO<sub>2</sub>) that humans pumped into the atmosphere in the past 2 decades. While this drives acidification and has consequences for sea life, it also moderates the rate of climate change.

Researchers recently set out to create a global model of CO<sub>2</sub> uptake using fine-scale observations on a global scale. Between 1998 and 2011, they found strong interannual variations, with the Pacific Ocean dominating the global flux variability.

"Shipboard surface water CO<sub>2</sub> measurements are the backbone of data-based ocean CO<sub>2</sub> sink estimates. Thanks to an increasing community effort, we are now able to estimate how much the ocean CO<sub>2</sub> sink varies on inter-annual to decadal timescales," said Dr. Peter Landschützer, lead author of the *Global Biogeochemical Cycles* study.

**More information:** Landschützer, P., N. Gruber, D. C. E. Bakker, and U. Schuster (2014), Recent variability of the global ocean carbon sink, *Global Biogeochem. Cycles*, 28, 927-949, [DOI: 10.1002/2014GB004853](https://doi.org/10.1002/2014GB004853)

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