



This is the print version of the [Skeptical Science](http://sks.to/ocean) article '[It's the ocean](http://sks.to/ocean)', which can be found at <http://sks.to/ocean>.

Why ocean heat can't drive climate change, only chase it

What The Science Says:

The oceans are warming and moreover are becoming more acidic, threatening the food chain.

Climate Myth: It's the ocean

"These small global temperature increases of the last 25 years and over the last century are likely natural changes that the globe has seen many times in the past. This small warming is likely a result of the natural alterations in global ocean currents which are driven by ocean salinity variations. Ocean circulation variations are as yet little understood. Human kind has little or nothing to do with the recent temperature changes. We are not that influential." ([William Gray](#))

The argument attributing the warming of the Earth to heat being released by the oceans was clearly articulated by William M Gray, one of the world's foremost experts on tropical storms. Unfortunately, his views on oceans and their part in global warming appear to contradict the published science. Gray believes that the increased atmospheric heat – which he calls a 'small warming' – is "...likely a result of the natural alterations in global ocean currents which are driven by ocean salinity variations." ([BBC Interview 2000](#))

The Science

The problem with Gray's argument is that unless more heat was being poured into the oceans, they would be obliged by the laws of physics to cool when heat was transferred to the atmosphere.

80% of the heat in the planet's ecosystem is stored in the oceans, and they have been getting consistently warmer over time ([Ocean cooling: skeptic arguments drowned by data](#)). There would also be other indicators e.g. sea levels, which would be static or go down by some small amount as a result of thermal contraction. There are no indicators of ocean heat driving temperature changes that are supported by the evidence. It should also be noted that Gray has never published, nor offered any proof, of these theories, so his views are purely speculative.

Claims that the warming of the planet is due to heat being released from the oceans into the atmosphere are not supported by any empirical evidence or peer-reviewed science.



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Skeptical Science explains the science of global warming and examines climate misinformation through the lens of peer-reviewed research. The website won the Australian Museum 2011 Eureka Prize for the Advancement of Climate Change Knowledge. Members of the Skeptical Science team have authored peer-reviewed papers, a [college textbook on climate change](#) and the book [Climate Change Denial: Heads in the Sand](#). Skeptical Science content has been used in university courses, textbooks, government reports on climate change, television documentaries and numerous books.



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