

Study reveals scientific consensus on anthropogenic climate change

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Giant tabular icebergs surrounded by ice drift in Vincennes Bay in the Australian Antarctic Territory on January 11, 2008. A review of thousands of studies published over 21 years found "overwhelming" and growing consensus among scientists that humans are mostly to blame for global warming, its authors said Thursday.

A comprehensive analysis of peer-reviewed articles on the topic of global warming and climate change has revealed an overwhelming

consensus among scientists that recent warming is human-caused.

The study is the most comprehensive yet and identified 4000 summaries, otherwise known as abstracts, from papers published in the past 21 years that stated a position on the cause of recent global warming – 97 per cent of these endorsed the consensus that we are seeing man-made, or anthropogenic, global warming (AGW)

Led by John Cook at the University of Queensland, the study has been published today, Thursday 16 May, in IOP Publishing's journal *Environmental Research Letters*.

The study went one step further, asking the authors of these papers to rate their entire paper using the same criteria. Over 2000 papers were rated and among those that discussed the cause of recent global warming, 97 per cent endorsed the consensus that it is caused by humans.

The findings are in stark contrast to the public's position on global warming; a 2012 [poll](#)* revealed that more than half of Americans either disagree, or are unaware, that scientists overwhelmingly agree that the Earth is warming because of human activity.

John Cook said: "Our findings prove that there is a strong scientific agreement about the cause of [climate change](#), despite public perceptions to the contrary.

"There is a gaping chasm between the actual consensus and the [public perception](#). It's staggering given the evidence for consensus that less than half of the general public think scientists agree that humans are causing global warming.

"This is significant because when people understand that scientists agree on global warming, they're more likely to support policies that take

action on it."

In March 2012, the researchers used the ISI Web of Science database to search for peer-reviewed academic articles published between 1991 and 2011 using two topic searches: "global warming" and "[global climate change](#)".

After limiting the selection to peer-reviewed climate science, the study considered 11 994 papers written by 29 083 authors in 1980 different scientific journals.

The abstracts from these papers were randomly distributed between a team of 24 volunteers recruited through the "myth-busting" website [skepticalscience.com](#), who used set criteria to determine the level to which the abstracts endorsed that humans are the primary cause of global warming. Each abstract was analyzed by two independent, anonymous raters.

From the 11 994 papers, 32.6 per cent endorsed AGW, 66.4 per cent stated no position on AGW, 0.7 per cent rejected AGW and in 0.3 per cent of papers, the authors said the cause of global warming was uncertain.

Co-author of the study Mark Richardson, from the University of Reading, said: "We want our scientists to answer questions for us, and there are lots of exciting questions in climate science. One of them is: are we causing [global warming](#)? We found over 4000 studies written by 10 000 scientists that stated a position on this, and 97 per cent said that recent warming is mostly man made."

Visitors to the [skepticalscience.com](#) website also raised the funds required to allow the study to be accessible to the public.

Daniel Kammen, editor-in-chief of the journal *Environmental Research Letters*, said: ""This paper demonstrates the power of the *Environmental Research Letters* open access model of operation in that authors working to advance our knowledge of [climate science](#) and to engage in a public discourse can guarantee all interested parties have the opportunity to review the same data and findings."

More information: * www.pewresearch.org/2013/04/02...s-from-pew-research/

Quantifying the consensus on anthropogenic global warming in the scientific literature, by John Cook, Dana Nuccitelli, Sarah A Green, Mark Richardson, Bärbel Winkler, Rob Painting, Robert Way, Peter Jacobs and Andrew Skuce, 2013 *Environ. Res. Lett.* 8 024024.
iopscience.iop.org/1748-9326/8/2/024024/article

Provided by Institute of Physics

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