

Ice age not a global phenomenon: study

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If the Earth is heading for a new ice age, Australia may not be as affected as countries in the Northern Hemisphere, according to new research from The Australian National University published today in *Science*.

Dr Timothy Barrows, a palaeoclimatologist at the ANU Research School of Physical Sciences and Engineering, says that a freak cooling at the end of the last ice age 12,900 years ago, was a phenomenon felt only in the north, not globally as previously thought.

This rapid cooling, which brought on an ice age for 1400 years, is known as the Younger Dryas event. It was caused by a disruption of ocean circulation in the Atlantic Ocean, which could occur again if the Greenland Ice Sheet were to melt.

Dr Barrows studied New Zealand's Franz Joseph Glacier, where the Waiho Loop site had revealed wood previously dated to the Younger Dryas event, suggesting the glacier had responded to it.

However, using a new method of dating glacial sediments similar to radiocarbon dating, Dr Barrows was able to prove that boulders from the Waiho Loop date to more than 1000 years after the Younger Dryas event had ended.

A core from the ocean nearby supports the finding. Not only did the temperature not drop in the Southern Hemisphere during the dramatic freeze in Europe, it actually increased, and to significantly warmer

temperatures than we experience today – at least 2 degrees warmer. It has been steadily cooling ever since.

“It was thought that climate change was always global, but our research shows that is not necessarily the case, in fact what happens in the north can be the opposite of what happens in the south. So if the Greenland Ice Sheet does melt because of global warming, triggering another ice age, Australia and New Zealand are the places to be,” Dr Barrows said.

Source: Australian National University

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