

MEDIEVAL WARM PERIOD IN AUSTRALIA & NEW ZEALAND



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Climate alarmists have claimed for quite some time that late-20th-century and early-21st-century global temperatures were so *high* as to merit the word "unprecedented" when comparing them to temperatures of the past millennium or two; and they also claim that this achievement was both driven and sustained by the carbon dioxide or CO₂ released to the air by mankind's burning of fossil fuels such as coal, gas and oil. But to *maintain* this dual contention, they have been forced to *further* contend that the well-known Medieval Warm Period was neither hemispheric nor global in scope, but merely confined to the much smaller region surrounding the North Atlantic Ocean. And they have also had to contend that the MWP was never really as warm as it had long been believed to be.

In introducing their paper of quite some time ago, [Wilson et al. \(1979\)](#)¹ wrote that one of their main objectives in conducting the study it described was to compare the temperature record from New Zealand - which they emphasized is "in the Southern Hemisphere and a region meteorologically unrelated to Europe" - with the climate record of England, where the MWP had already made its mark on that country's and the surrounding region's climatic history. Their contribution to this endeavor was to decipher the ¹⁸O/¹⁶O profile from the core to the surface of a stalagmite obtained from a cave in New Zealand, which was dated by the ¹⁴C method. And in doing so, they found that the proxy temperature record provided by the stalagmite was broadly similar to the climate record of England, exhibiting a period in the early part of the past millennium that was about 0.75°C *warmer* than it was in the mid-20th-century. And based on that finding they made the broader conclusion that "such climatic fluctuations as the Medieval Warm Period and Little Ice Age are not just a local European phenomenon."

A quarter of a century later, [Williams et al. \(2004\)](#)² wrote that their new paper on the subject revises and builds on results that were derived by Williams et al. (1999) from stable isotope

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¹ <http://www.co2science.org/articles/V3/N34/C2.php>.

² <http://www.co2science.org/articles/V7/N19/C3.php>.

stratigraphy found in caves at Waitomo, which is located at 38.3°S latitude about 35 km from the west coast of the central North Island of New Zealand. More specifically, they enhanced three existing speleothem (stalactite, stalagmite or flowstone cave deposit) records "by adding another chronology, increasing the subsample resolution of existing records, and by much improving the temporal control of all chronologies by basing it entirely on uranium series TIMS dating." And with these improvements, Williams *et al.*'s speleothem master chronologies revealed a warmer-than-present late-Holocene warm peak located between 0.9 and 0.6 ka BP that they equated with the Medieval Warm Period of Europe, further noting that this period "coincided with a period of Polynesian settlement (McGlone and Wilmshurst, 1999)." Thereafter, they further reported that temperatures "cooled rapidly to a trough about 325 years ago," which they said corresponded to "the culmination of the 'Little Ice Age' in Europe."

In clear contradiction of the claims of climate alarmists, these findings are but another example of the *unending stream of studies* from all around the world that continue to document the *global* presence of a *warmer-than-present* Medieval Warm Period; and they are becoming ever more difficult to deny, because they demonstrate that the *Medieval* Warm Period was warmer than the *Modern* Warm Period, even though the air's CO₂ concentration of that earlier period was about 115 ppm *less* than it is currently. This being the case, there is absolutely no reason to attribute the planet's current level of warmth to its current elevated atmospheric CO₂ content, as there is an historical precedent (the MWP) for even *higher* temperatures than those of the present with much *lower-than-current* atmospheric CO₂ concentrations.

The results of the several studies described greatly advance the thesis that the MWP was indeed a global phenomenon, wherein temperatures throughout the world were significantly warmer than they have been anytime subsequently, and that there is thus nothing unusual or unprecedented about earth's current level of warmth.

A short four-year hiatus later, [Lorrey et al. \(2008\)](#)³ developed two master *speleothem* $\delta^{18}\text{O}$ records for New Zealand's eastern North Island (ENI) and western South Island (WSI) for the period 2000 BC to about AD 1660 and 1825, respectively. The WSI record was a composite chronology composed of data derived from four speleothems from Aurora, Calcite, Doubtful Xanadu and Waiau caves, while the ENI record was a composite history derived from three speleothems from Disbelief and Te Reinga caves. This work revealed that for both the ENI and WSI $\delta^{18}\text{O}$ master speleothem histories, their warmest periods fell within the AD 900-1100 time interval, which is also where the peak warmth of a large portion of the temperature records found in [co2science.org's Interactive Map and Time Domain Plot](#)⁴ of their [Medieval Warm Period Project](#)⁵ falls.

Not wanting to acknowledge that the earth of a thousand or so years ago was likely as warm as, or even warmer than, it is currently - when the atmosphere's CO₂ concentration was *much* lower than it is today (285 vs. 400 ppm) - the world's climate alarmists have been loath to admit there was an MWP anywhere other than in countries surrounding the North Atlantic Ocean. And so it is that the results of the several studies described above are of great importance to the ongoing global warming debate, as they greatly advance the thesis that the MWP was indeed a *global* phenomenon, wherein temperatures *throughout the world* were *significantly warmer* than they have been *anytime subsequently*, and that there is thus nothing *unusual or unprecedented* about earth's current level of warmth, with the obvious implication that the maximum temperatures of the present simply cannot be attributed to the historical increase in the air's CO₂ content.

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³ <http://www.co2science.org/articles/V11/N53/C2.php>.

⁴ <http://www.co2science.org/data/timemap/mwppmap.html>.

⁵ <http://www.co2science.org/data/mwp/mwppp.php>.

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