NOT N-ICE

**Arctic now ‘warmest in 3million years’ as sea ice HALVES in just 40 years, scientists warn**

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**THE Arctic "hasn’t been this warm for three million years", according to scientists who have been studying CO2 emissions.**

This claim comes after this year's annual low point of sea ice in the Arctic was the second lowest since satellite records began over 40 years ago.

Researchers from the University of Massachusetts Amherst recently published an article in [The Conversation](https://theconversation.com/the-arctic-hasnt-been-this-warm-for-3-million-years-and-that-foreshadows-big-changes-for-the-rest-of-the-planet-144544) explaining how carbon dioxide levels in the atmosphere are "higher than at any other time in human history".

They are part of a team of scientists who studied ancient sediment cores from northeast Russia.

They found that levels of CO2 in the atmosphere haven't been this high since the Pliocene Epoch era which was three million years ago.

According to their research, rising greenhouse gas emissions could see us living with Pliocene conditions again including higher sea levels and changes to our weather.

The researchers think the Arctic actually reached much warmer levels than today in the Pliocene era and had warmer oceans and coastlines that were further inland.

They wrote: "The areas that are now California’s Central Valley, the Florida Peninsula and the Gulf Coast all were underwater.

"So was the land where major coastal cities like New York, Miami, Los Angeles, Houston and Seattle stand."

They also note how weather conditions similar to the Pliocene Epoch would change agriculture.

Some experts think the Pliocene had similar levels of CO2 to what we have today because of natural processes that occurred at a much slower pace than our current climate change.

These processes include rock weathering releasing CO2 and tectonic plate movements pushing more rock to the surface and increasing the amount of rock weathering.

Today human activity is thought to be releasing CO2 into the atmosphere at a much faster rate than in the Pliocene era.

This gives Earth's climate systems less time to process what's happening.

Since the Industrial Era in 1750, it only took humans just over 200 years to return the planet to CO2 levels not seen for millions of years.

Most of this shift is said to have happened after WWII.

The scientists wrote in The Conversation: "Since roughly 1880 the planet has warmed by 1 degree Celsius (2 degrees Fahrenheit) – many times faster than any warming episode in the past 65 million years of Earth’s history."

They also highlighted how other experts think the Arctic will be completely ice free within two decades.

They suggest big steps like decreasing fossil fuel use to try and compact the issue.

Other studies have questioned the connection between CO2 levels and the warm Pliocene climate including one by Nasa researchers.

[It stated](https://www.giss.nasa.gov/research/features/199704_pliocene/page3.html): "Neither simulation results or data support the conclusion that Pliocene warming was caused entirely by a large increase in atmospheric CO2 content.

"We cannot rule out, however, that some combination of the altered CO2 and altered ocean heat transport caused the warmer climate of the middle Pliocene."

### Climate change explained

**Here are the basic facts...**

* Scientists have lots of evidence to show that the Earth’s climate is rapidly changing due to human activity
* Climate change will result in problems like global warming, greater risk of flooding, droughts and regular heatwaves
* Each of the last three decades have been hotter than the previous one and 17 of the 18 warmest years on record have happened during the 21stcentury
* The Earth only needs to increase by a few degrees for it to spell disaster
* The oceans are already warming, polar ice and glaciers are melting, sea levels are rising and we’re seeing more extreme weather events
* In 2015, almost all of the world's nations signed a deal called the Paris Agreement which set out ways in which they could tackle climate change and try to keep temperatures below 2C

https://www.thesun.co.uk/tech/12851440/arctic-now-warmest-in-three-milion-years/