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Arctic ice 'is at tipping point'

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Scientists suggest the Arctic is already at a climatic "tipping point"

Arctic sea ice has shrunk to the second smallest extent since satellite records began, US scientists have revealed.

The National Snow and Ice Data Center (NSIDC) says that the ice-covered area has fallen below its 2005 level, which was the second lowest on record. Melting has occurred earlier in the year than usual, meaning that the iced area could become even smaller than last September, the lowest recorded.

Researchers say the Arctic is now at a climatic "tipping point".

"We could very well be in that quick slide downwards in terms of passing a tipping point," said Mark Serreze, a senior scientist at the Colorado-based NSIDC.

"It's tipping now. We're seeing it happen now," he told the Associated Press news agency.

Under covered

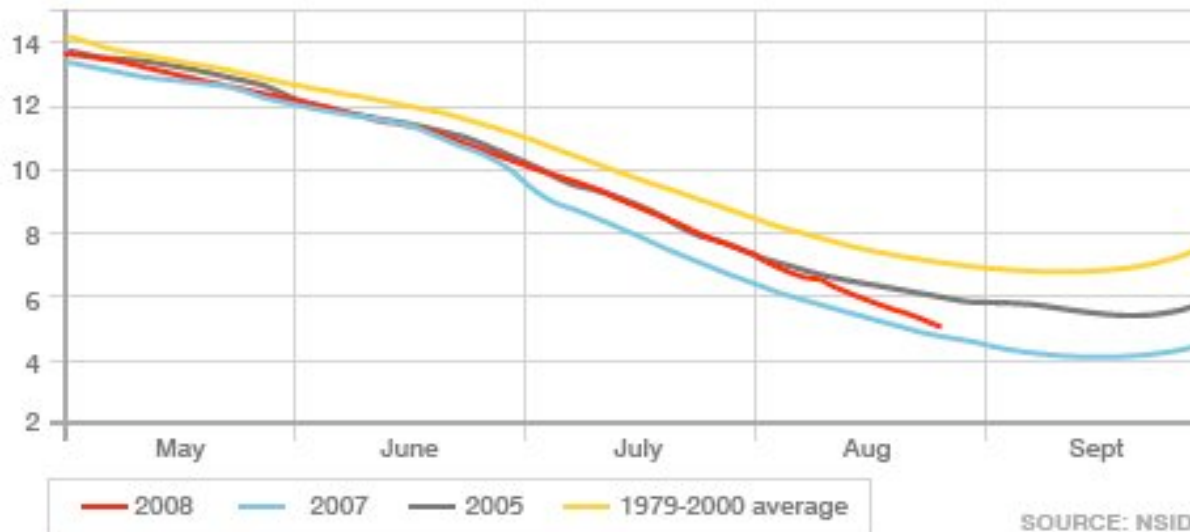
The area covered by ice on 26 August measured 5.26 million sq km (2.03 million sq miles), just below the 2005 low of 5.32 million sq km (2.05 million sq).

But the 2005 low came in late September; and with the 2008 graph pointing downwards, the NSIDC team believes last year's record could still be broken even though air temperatures, both in the Arctic and globally, have been lower than last year.

Last September, the ice covered just 4.13 million sq km (1.59 million sq miles), the smallest extent seen since satellite imaging began 30 years ago. The 1980 figure was 7.8 million sq km (3 million sq miles).

ARCTIC SEA ICE EXTENT

Square kilometres (millions)



The 2008 graph shows a steeper decline than at the same time last year

Most of the cover consists of relatively thin ice that formed within a single winter and melts more easily than ice that accumulated over many years. Irrespective of whether the 2007 record falls in the next few weeks, the long-term trend is obvious, scientists said; the ice is declining more sharply than even a decade ago, and the Arctic region will progressively turn to open water in summers.

A few years ago, scientists were predicting ice-free Arctic summers by about 2080.

Then computer models started projecting earlier dates, around 2030 to 2050; and some researchers now believe it could happen within five years.

That will bring economic opportunities, including the chance to drill for oil and gas. Burning that oil and gas would increase levels of greenhouse gases in the atmosphere still further.

The absence of summer ice would have impacts locally and globally.

The iconography of polar bears unable to find ice is by now familiar; but other species, including seals, would also face drastic changes to their habitat, as would many Arctic peoples.

Globally, the Arctic melt will reinforce warming because open water absorbs more of the Sun's energy than ice does.