Record sea ice around Antarctica due to global warming

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IT JUST gets bigger. The extent of the sea ice around Antarctica has hit a record high – for the third year running. Counter-intuitively, global warming is responsible.

Since satellite records began in 1979, the winter maximum sea ice cover around Antarctica has been growing at 1.5 per cent per decade. This year has long been on track for a new annual record, with 150 daily records already set.

The record was finally broken on 15 September and sea ice extent has increased since, according to data from the US National Snow and Ice Data Center analysed by Australia's Bureau of Meteorology in Hobart.

More sea ice may seem odd in a warmer world, but new records are expected every few years, says Jan Lieser of the Antarctic Climate and Ecosystems Cooperative Research Centre in Hobart. That's because the southern hemisphere warms more slowly than the north, as it has less landmass, boosting the winds that circle Antarctica and pulling cold air onto the sea ice.

The melting of ice on the Antarctic mainland may also be creating more sea ice, by dumping easily frozen fresh water into the ocean, says Nerilie Abram of the Australian National University in Canberra.

The extra sea ice is a good thing, as it reflects sunlight and slows global warming. But the sea ice is expected to shrink eventually. "By 2100 we will see dramatic reductions," says Lieser. "Once it goes belly-up it's not good for the rest of the world."

Antarctic sea ice set for record high as Arctic heads for sixth lowest extent

Antarctica poised for record high as figures show Arctic sea ice was millions of square kilometres below long-term average

Adam Vaughan

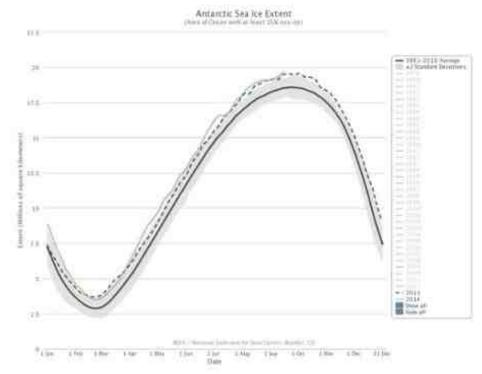
theguardian.com, Wednesday 17 September 2014 09.42 BST



Ringed seals outside their breathing holes on multi-layered Arctic sea ice Photograph: Design Pics Inc/Rex The extent of sea ice in Antarctica is set to reach a record high, scientists said on Tuesday, as they announced that Arctic sea ice appeared to have shrunk to its sixth lowest level ever.

The NSIDC said that satellite data was expected to shortly confirm whether the maximum extent of sea ice at the opposite pole, in Antarctica, had set a new record.

"Antarctic sea ice is poised to set a record maximum this year, now at 19.7 million sq km (7.6m sq m) and continuing to increase," the centre, considered one of the world's top authorities on sea ice data, said in a statement.



Antarctic sea ice extent Photograph: NSIDC

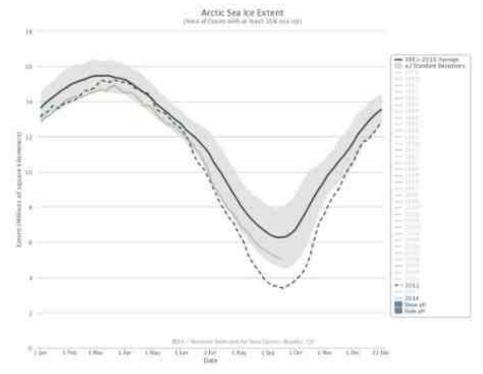
Jan Lieser, of the Antarctic Climate and Ecosystems Co-operative Research Centre (CRC), told Australia's ABC News that: "This is an area covered by sea ice which we've never seen from space before."

The conundrum of why Antarctic sea ice appears to be expanding as the Arctic decreases had puzzled polar observers, but scientists have suggested that the reason Antarctic ice extent appears to be increasing is due to changing wind patterns.

Figures released by the National Snow and Ice Data Centre in Boulder, Colorado, show that the so-called Arctic sea ice minimum – the point where the extent of sea ice there is at its lowest after the summer, before it begins to refreeze for winter – is expected to be confirmed imminently and would be millions of square kilometres below the long-term average.

At 5.09m sq km, the extent of Arctic sea ice this year would be the sixth lowest on record, slightly worse than last year, though not as extreme as the record set in 2012 when it plunged to less than 3.5 million square kilometres.

However, the centre noted that there had been a particularly strong retreat of sea ice in the Laptev Sea and although the reasons for that were not yet clear, sea temperatures there had been up to 5C higher than average.



Arctic sea ice extent Photograph: NSIDC

The amount of sea ice cover in the Arctic has been showing a long-term decline as climate change takes hold, with temperatures rising more rapidly in the Arctic than the rest of the planet.