

Experts said Arctic sea ice would melt entirely by September 2016 - they were wrong

Sarah Knapton, London Telegraph, 10-8-16

Dire predictions that the Arctic would be devoid of sea ice by September this year have proven to be unfounded after latest satellite images showed there is far more now than in 2012.

Scientists such as Prof Peter Wadhams, of Cambridge University, and Prof Wieslaw Maslowski, of the Naval Postgraduate School in Monterey, California, have regularly forecast the loss of ice by 2016, which has been widely reported by the BBC and other media outlets.

Prof Wadhams, a leading expert on Arctic sea ice loss, has recently published a book entitled *A Farewell To Ice* in which he repeats the assertion that the polar region would free of ice in the middle of this decade.

As late as this summer, he was still predicting an ice-free September.

Yet, when figures were released for the yearly minimum on September 10, they showed that there was still 1.6 million square miles of sea ice (4.14 square kilometres), which was 21 per cent more than the lowest point in 2012.

For the month of September overall, there was 31 per cent more ice than in 2012, figures released this week from the National Snow and Ice Data Centre (NSIDC) show. This amounts to an extra 421,000 (1.09 million square kilometres) of sea ice, making the month only the fifth lowest since records began.

Although a quick glance at NSIDC satellite data going back to 1981 shows an undeniable downward trend in sea ice over the past 35 years, scientists have accused Prof Wadhams and others of "crying wolf" and harming the message of climate change through "dramatic", "incorrect" and "confusing" predictions.

Dr Ed Hawkins, associate professor in the Department of Meteorology, at the University of Reading, said: "There has been one prominent scientist who has regularly made more dramatic, and incorrect, in my view predictions suggesting that we would by now be in ice-free conditions.

"There are very serious risks from continued climatic changes and a melting Arctic, but we do not serve the public and policy-makers well by exaggerating those risks.

"We will soon see an ice-free summer in the Arctic, but there is a real danger of 'crying wolf' and that does not help anyone.

"As global temperatures rise, we will see a continuing decline in Arctic sea ice extent, although this will happen somewhat erratically, rather like a ball bouncing down a bumpy hill.

"Without substantial reductions in greenhouse gas emissions, the ball will reach the bottom of the hill, meaning the Arctic is 'ice-free', starting with a few days one summer, a few weeks another summer and gradually becoming more and more frequent over the next few decades."

It is the latest example of experts making alarming predictions which do not come to pass. Earlier this week environmentalists were accused of misleading the public about the "Great Pacific Garbage Patch" after aerial shots proved there was no "island of rubbish" in the middle of the ocean. Likewise, warnings that the hole in the ozone layer would never close were debunked in June.

Scientists warn that such claims risk detracting from the real issue. Losing Arctic sea ice is a major problem because ice reflects up to 70 per cent of sunlight, while open water reflects just 10 per cent, meaning the rest is absorbed by the planet, which speeds up global warming. A massive melt of freshwater could also disrupt global ocean currents and change weather systems.

For more than a decade, most scientists have accepted that the Arctic will be free ice-free by 2050, while the Intergovernmental Panel on Climate Change (IPCC) calculates there is a 66 per cent chance of no ice by the middle of the century if emissions continue to increase annually.

Yet in 2007, Prof Wadhams predicted that sea ice would be lost by 2013 after levels fell 27 per cent in a single year. However, by 2013, ice levels were actually 25 per cent higher than they had been six years before. In 2012, following another record low, Prof Wadhams changed his prediction to 2016.

The view was supported by Prof Maslowski, who in 2013 published a paper in the Annual Review of Earth and Planetary Sciences also claiming that the Arctic would be ice-free by 2016, plus or minus three years.

However, far from record lows, this year the Arctic has seen the quickest refreeze ever recorded with the extent of sea ice growing 405,000 square miles (1.05 million square kilometres) in just three weeks since the September 10 minimum. The Danish Meteorological Institute said that refreezing is happening at the fastest rate since its daily records began in 1987.

Andrew Shepherd, professor of earth observation at University College London, said there was now "overwhelming consensus" that the Arctic would be free of ice in the next few decades, but warned earlier predictions were based on poor extrapolation.

"A decade or so ago, climate models often failed to reproduce the decline in Arctic sea ice extent revealed by satellite observations," he said.

"One upshot of this was that outlier predictions based on extrapolation alone were able to receive wide publicity.

"But climate models have improved considerably since then and they now do a much better job of simulating historical events.

"This means we have greater confidence in their predictive skill, and the overwhelming consensus within the scientific community is that the Arctic Ocean will be effectively free of sea ice in a couple of decades should the present rate of decline continue."

Prof Myles Allen, of Oxford University, added: "The Arctic was only predicted to be close to ice-free in September by mid-century."

Scientists said it was clear that sea ice was shrinking but there were large fluctuations between years. For example, 2013 saw a 50 per cent increase from the previous year.

Prof Jonathan Bamber, of the University of Bristol, said: "This year's low was the second lowest on record and not as low as 2012. But there is always variability in any part of the climate system so you would not expect a monotonic decline year on year whatever was going on.

"The signal of Arctic sea ice decline is possibly the clearest we have of climate change. That does not mean, by definition, it is manmade, but there is no question that sea ice volume has been declining, on average,

over the last 40 years and that all the indications from climate data, satellite observations, etc, are that the decline will continue.”

Bob Ward, of the Grantham Institute on Climate Change and the Environment, added: “Peter Wadhams has made predictions of the imminent disappearance of summer Arctic sea ice which have not been fulfilled, but the evidence still shows a rapid decline.

“The trend in Arctic sea ice extent is definitely downwards for every single month of the year.

“The most recent IPCC forecast is that the Arctic has up to a 66 per cent chance of being ice-free in September by 2050 for the highest emissions scenario.”

Speaking to The Telegraph, Prof Wadhams admitted that sea ice decline had not happened as quickly as he had predicted. However, he still believes that an ice-free Arctic is still only a "very small number of years" away.

“My view is that the trend of summer sea ice volume is relentlessly downward, such that the volume (and thus area) will come to a low value very soon - in a very small number of years,” he said.

“This is to be contrasted with some of the bizarre predictions made by computer modellers, who have the summer sea ice remaining until late this century, which is quite impossible.”