Antarctica Sensation: Ice Shelves Surrounding the Continent Grew in Overall Size From 2009-2019

In the 11 years to 2019, the ice shelves around Antarctica grew in overall size, with overall shelf size increasing by 5,305 km2, reports Chris Morrison in the Daily Sceptic.

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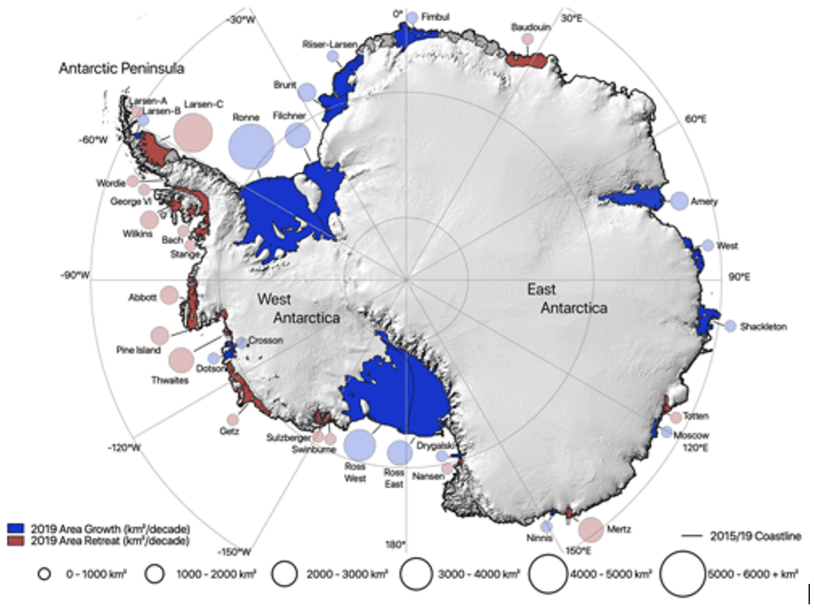
The ice shelves surrounding Antarctica grew in overall size during the 11 years to 2019, according to dramatic new evidence published by three climate scientists from the University of Leeds. The growth was significant with overall shelf area increasing by 5,305 km^2, adding 0.4% to the total shelf area in the 11 years under review. The paper has just been published by the influential European Geosciences Union, but it raises questions within the 'settled' climate science narrative, so it is highly unlikely to be covered by mainstream media

The Leeds researchers looked at satellite data to measure the annual calving position and area of 34 ice sheets accounting for 80% of the Antarctica coastline. They found reductions in the area on the Antarctica Peninsula and West Antarctica of 6,693 km^2 and 5,563 km^2 respectively were outweighed by growth in East Antarctica of 3,532 km^2 and 14,028 km^2 in the large Ross and Ronne-Filchner ice shelves. The largest retreat occurred on the Larsen C shelf when 5,917 km^2 was lost in a single calving event that made alarmist headlines around the world. The largest increase, noted in slightly less media detail, was the 5,889 km^2 advance on the Ronne platform.

Ice shelves around the coast of Antarctica play an important role in the cycle of ice production since they often buttress the glaciers behind them. Remove the plug and glaciers can move at a faster rate towards the coast. The shelves show considerable natural variation allowing alarmists to cherry-pick significant collapses into the sea to promote a hypothesis that the overall climate is breaking down. Typical of this coverage was an article by BBC science correspondent Jonathan Amos in 2021 under a 'climate change' heading, noting, "The Antarctic ice shelf in the line of fire." In 2017, *i News* reported comments broadcast by Sir David Attenborough said to warn that "Antarctica's

melting ice sheets could flood London by end of century".



The above map displays the ice shelf areas in blue that have increased in size and colours in red those that have decreased. The two large blue areas are the Ross and Ronne-Filchner areas. Little loss is shown over the east of the continent with deficits concentrated in the West. In total, 18 ice shelves are said to have retreated and 16 larger platforms have grown in area. Overall, the shelves gained 661 giga tonnes of mass over the decade. The scientists note that using a 'steady' state process, by which they mean no change in any variable, would produce an estimate of substantial loss over the period. They argue their work demonstrates the importance of using "time-variable calving flux observations to measure change".

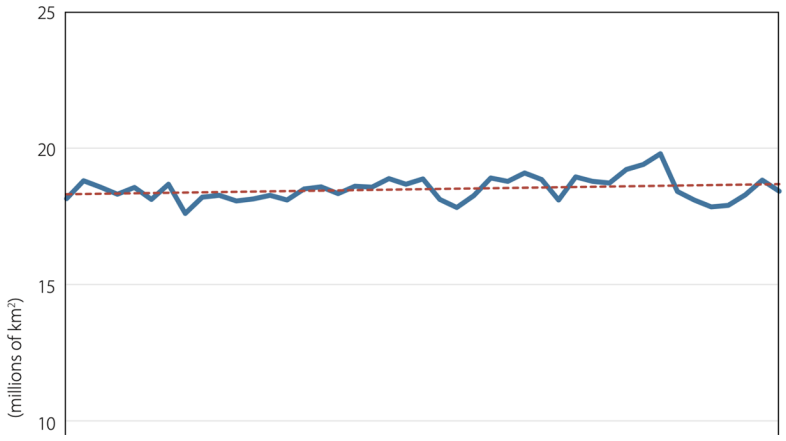
In short, and in less scientific terms, check actual observations, and ignore make-believe computer models, and the resulting stories published by climate alarmists promoting the collectivist Net Zero project.

It is not a surprise that ice shelves are currently thinning in parts of West Antarctica. The area is riddled with buried volcanos, with the recent discovery of another 91 bringing the known total to 138. Across the West Antarctica Rift System, their heights range from 300-12,600 ft. In addition, areas around the Thwaites-Pine Island-Pope glacier have a thin Earth crust causing one group of scientists to note that the "elevated geothermal heat flow band" is exerting a "profound influence on the flow dynamics of the Western Antarctica Ice Sheet".

On a number of occasions, the *Daily Sceptic* has referenced the recent work of Singh and Polvani that shows current warming only in that part of the continent. Over the last seven decades, warming across Antarctica has been "nearly non-existent", they point out. The surrounding sea ice extent has "modestly expanded". Over at NASA, scientists have estimated any overall sheet ice loss at 0.0005% a year.

Last year, Adjunct Professor J. Ray Bates at the University College Dublin wrote a paper entitled 'Polar Sea Ice and the Climate Catastrophe

Narrative'. In the Antarctic, the meteorologist observed, there has been "no significant" change in the annual mean sea ice extent since reliable satellite measurements began. This is despite climate model predictions of a decline.



He published the above graph which showed the extent of sea ice from 1979 to 2021 along the horizontal axis. Contrary to what the models projected, the trend during this period at the September late-winter maximum is in the direction of a slightly increasing Antarctica sea ice extent. Professor Bates concludes that climate models failed to predict the growth in Antarctica sea ice, and they have missed the recent marked slowdown of sea ice decline in the Arctic. "It would be unwarranted to think they are going to get it right over the next 30 years," he said.

He concludes: "These facts deserve to be recognised when the notion of a climate emergency, requiring the most drastic and immediate changes to the world's economy, is being put forward. Some concern might also be

shown among those involved for the increasing eco-anxiety being inflicted on the younger generation."

Chris Morrison is the Daily Sceptic's *Environment Editor.*