

An Inconvenient Truth: Few Signs Of Global Warming In Antarctica

Michael Bastasch

August 27, 2016

Antarctica has confounded scientists, defying the dire predictions of scientists the South Pole would shrink and exacerbate sea level rise in the coming decades.

Climate models predicted Antarctic sea ice would shrink as the world warmed, and that warming would boost snowfall over the southern continent. Neither of those predictions have panned out, and now scientists say “natural variability” is overwhelming human-induced warming.

“Truth is, the science is complex, and that in most places and with most events, natural variability still plays a dominant role, and undoubtedly will continue to do so,” Chip Knappenberger, a climate scientist with the libertarian Cato Institute, told The Daily Caller News Foundation.

“This applies to goings-on in Antarctica as well as in Louisiana,” Knappenberger said, referring to the recent flooding in Louisiana activists have already blamed global warming for.

What recent studies have shown is that natural variability in the climate system plays a big role in the South Pole, and there are few signs of man-made global warming in Antarctica.

Shouldn't There Be More Snow?

Antarctica is a tricky topic for scientists. It has a long history of chaotic weather and dramatic changes in its ice sheet, and scientists are realizing just how difficult it is to predict future behavior down under.

A recent study seemed to sum up what Knappenberger said should be the “consensus” of mainstream scientists: global warming has exerted little to no detectable influence in Antarctica.

Scientists with Columbia University's Earth Institute found there's been little change in Antarctica's annual snowfall, which flies in the face of what climate models predicted would happen as the planet warmed. They blamed strong “natural variability” for the models' failures.

“This new paper affirms these other recent findings showing that the expected signal from climate change has been struggling to rise above the noise of natural variability over recent decades, but expects the signal to eventually become noticeable,” Knappenberger said of the study.

Columbia scientists, however, said global warming's influence on the South Pole should become apparent "by the middle of the current century, thus mitigating future increases in global sea level."

This is just one of several recent papers suggesting natural variability is still dominant in the South Pole. So why don't we hear more about supposedly good news?

"When it comes to 'good' expectations, such as increase in the surface mass balance of Antarctica, activists prefer to ignore the projections, and instead claim that recent trends indicate the situation is 'worse than expected,'" Knappenberger said.

The Ice Is Melting ... Maybe

Scientists have also been warning for years that, on net, Antarctica has been losing 147 gigatons of ice per year for the last decade or so, mostly from melting on the northern Antarctic Peninsula and its western ice sheet.

There's seems to be a news story every day about how things are looking worse in the Antarctic. The Washington Post, for example, recently warned a long crack in western Antarctica's ice was growing. Sounds scary, but sort of obscures what's happening overall with Antarctica.

A 2015 study by NASA found Antarctica's ice sheet increased in mass from 1992 to 2008. The study found ice gains in Eastern antarctica more than offset ice loss from melting glaciers in the west.

Zwally's study was controversial and challenged years of assumptions about what was happening in the South Pole. But months later another study was published showing a "pause" in warming on the Antarctic Peninsula due to a recovering ozone hole and shifting wind patterns.

"The ozone hole contributed to a warming of the Antarctic Peninsula, but has given a small cooling around the rest of the Antarctic," John Turner, a variability climatologist with the British Antarctic Survey, told The Daily Caller News Foundation.

Turner, one of the paper's co-authors, found the ozone hole and wind patterns created a cooling trend over the Antarctic Peninsula, masking the warming trend predicted by climate models.

"It's recently been published that the level of stratospheric ozone has been slowly recovering since the late 1990s, which has played a part in the cessation of the 'peninsula warming' that we reported in our recent Nature paper," said Turner.

"Parts of the ice sheet are certainly melting, but as a result of relatively warm waters getting under the ice shelves and melting the ice from below," Turner said.

Turner and his colleagues noted that even in a warming world Antarctic temperatures can go up or down in a given year, such is the power of natural variability over the region.

Ice, Ice, Baby!

Climate models predicted Antarctic sea ice would shrink as a result of global warming, but the opposite happened. Antarctic sea ice actually increased in the last two decades.

Chinese scientists compared climate model sea ice predictions to actual observations from 1979 to 2005 and found “the main problem of the [climate] models is their inability to reproduce the observed slight increase of sea ice extent.”

As it turns out, natural variability plays a big role here as well.

“Sea ice extent is strongly influenced by the winds and these have increased from the south over the Ross Sea, contributing to a small increase in total Antarctic sea ice since the late 1970s,” Turner said. “The increase in ice seems to be within the bounds of natural variability.”

Had Chinese researchers gone beyond 2005, they would have found more than just a slight increase. 2014 was the first year on record that Antarctic sea ice coverage rose above 7.72 million square miles. By Sept. 22, 2014, sea ice extent reached its highest level on record — 7.76 million square miles.

Antarctica also had unique ocean currents that keep surface waters cooler than the rest of the world.

A June 2016 study found Antarctica has a unique current pulls cold water from the Southern Ocean’s depths to the surface, causing the surface water to be colder than, say, in the Arctic. Cold water has helped sea ice hit record levels in 2014.