

The 'Gulf Stream' will not collapse in 2025: What the alarmist headlines got wrong

August 4 2023, by Andrew Weaver

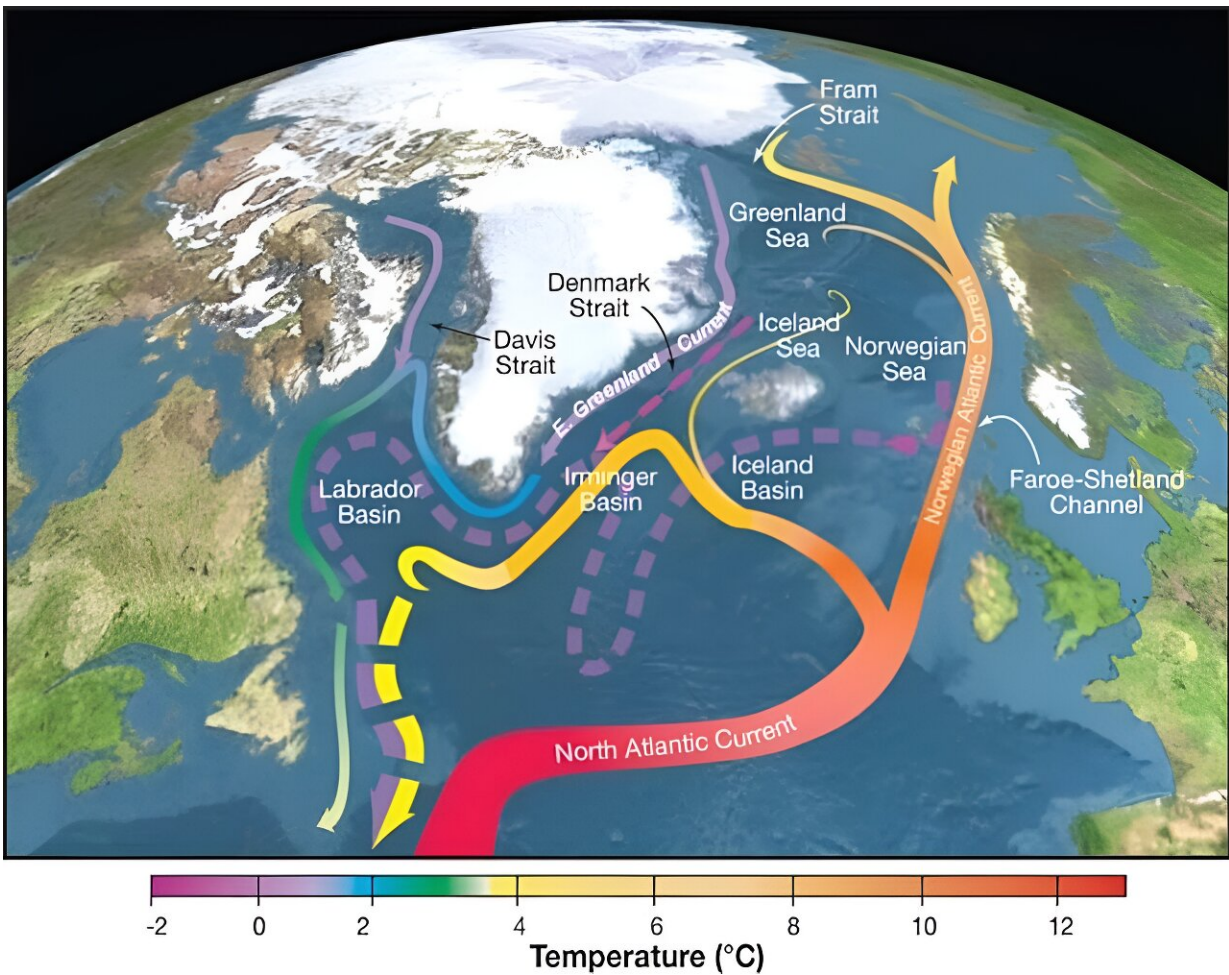


Diagram of the flow of the Atlantic meridional overturning circulation. Credit: R. Curry, Woods Hole Oceanographic Institution/Science/USGCRP, [CC BY](#)

Those following the latest developments in climate science would have been stunned by the jaw-dropping headlines last week proclaiming the ["Gulf Stream could collapse as early as 2025, study suggests"](#)—which responded to a [recent publication in *Nature Communications*](#).

"Be very worried: Gulf Stream collapse could spark global chaos by 2025" [announced the *New York Post*](#). "A crucial system of ocean currents is heading for a collapse that 'would affect every person on the planet" noted [CNN in the U.S.](#) and repeated [CTV News here in Canada](#).

One can only imagine how [those already stricken with climate anxiety](#) internalized this seemingly apocalyptic news as temperature records were being shattered across the globe.

This latest alarmist rhetoric provides a textbook example of how not to communicate [climate science](#). These headlines do nothing to raise public awareness, let alone influence public policy to support climate solutions.

We see the world we describe

It is well known that [climate anxiety is fueled by media messaging about the looming climate crisis](#). This is causing many to simply shut down and give up—[believing we are all doomed and there is nothing anyone can do about it](#).

Alarmist media framing of impending doom has become [quintessential fuel for personal climate anxiety](#), and when amplified by sensational media messaging, it is quickly emerging as a dominant factor in the [collective zeitgeist of our age, the Anthropocene](#).

This is also not the first time such headlines have emerged. Back in 1998, the [*Atlantic Monthly*](#) published an article raising the alarm that global "warming could lead, paradoxically, to drastic cooling—a

catastrophe that could threaten the survival of civilization."

In 2002, editorials in the [*New York Times*](#) and [*Discover*](#) magazine offered the prediction of a forthcoming collapse of deep water formation in the North Atlantic, which would lead to the next ice age.

Building on the unfounded assertions in these earlier stories, BBC Horizon televised a 2003 documentary titled "[The Big Chill](#)," and in 2004 [*Fortune*](#) magazine published "The Pentagon's Weather Nightmare," piling on where previous articles left off.

Seeing the opportunity for an exciting disaster movie, Hollywood stepped up to created [*The Day After Tomorrow*](#) in which every known law of thermodynamics was ever so creatively violated.

The currents are not collapsing (anytime soon)

While it was [relatively easy](#) to show that it is [not possible for global warming to cause an ice age](#), this still hasn't stopped some from [promoting](#) this false narrative.

The latest series of alarmist headlines may not have fixated on an impending ice age, but they still suggest the Atlantic meridional overturning circulation could collapse by 2025. This is an outrageous claim at best and a completely irresponsible pronouncement at worst.

	Changeable	Not Changeable
Optimistic	The future can be better if we work hard to change it	The future will be better; it'll all work out fine
Pessimistic	We're all doomed and need to take extreme action to protect ourselves	We're all doomed and there's nothing we can do about it

The sweetspot of climate communications strikes an optimistic tone while reinforcing that change is possible. Credit: Andrew Weaver

The Intergovernmental Panel on Climate Change has been assessing the likelihood of a cessation of deep-water formation in the North Atlantic for decades. In fact, I was on the writing team of the [2007 4th Assessment Report](#) where we concluded that:

"It is very likely that the Atlantic Ocean Meridional Overturning

Circulation (MOC) will slow down during the course of the 21st century. It is very unlikely that the MOC will undergo a large abrupt transition during the course of the 21st century."

Almost identical statements were included in the [5th Assessment Report in 2013](#) and the [6th Assessment Report in 2021](#). Other assessments, including the National Academy of Sciences [Abrupt Impacts of Climate Change: Anticipating Surprises](#), published in 2013, also reached similar conclusions.

The 6th assessment report went further to conclude that:

"There is no observational evidence of a trend in the Atlantic Meridional Overturning Circulation (AMOC), based on the decade-long record of the complete AMOC and longer records of individual AMOC components."

Understanding climate optimism

Hannah Ritchie, the deputy editor and lead researcher at [Our World in Data](#) and a senior researcher at the Oxford Martin School, [recently penned an article for Vox](#) where she proposed an elegant framework for how people see the world and their ability to facilitate change.

Ritchie's framework lumped people into four general categories based on combinations of those who are optimistic and those who are pessimistic about the future, as well as those who believe and those who don't believe that we have agency to shape the future based on today's decisions and actions.

Ritchie persuasively argued that more people located in the green "optimistic and changeable" box are what is needed to advance climate solutions. Those positioned elsewhere are not effective in advancing

such solutions.

More importantly, rather than instilling a sense of optimism that [global warming](#) is a solvable problem, the extreme behavior (fear mongering or civil disobedience) of the "pessimistic changeable" group (such as many within the [Extinction Rebellion](#) movement), often does nothing more than drive the public towards the "pessimistic not changeable" group.

A responsibility to communicate, responsibly

Unfortunately, extremely low probability, and often poorly understood [tipping point scenarios](#), often end up being misinterpreted as likely and imminent climate events.

In many cases, the [nuances of scientific uncertainty](#), particularly around the differences between hypothesis posing and hypothesis testing, are lost on the lay reader when a study goes viral across social media. This is only amplified in situations where scientists make statements where creative license is taken with speculative possibilities. Possibilities that reader-starved journalists are only too happy to play up in clickbait headlines.

Through independent research and the writing of IPCC reports, the climate science community operates from a position of privilege in the public discourse of [climate change](#) science, its impacts and solutions.

Climate scientists have agency in the advancement of [climate](#) solutions, and with that agency comes a responsibility to avoid sensationalism. By not tempering their speech, they risk further ratcheting up the rhetoric with nothing to offer in terms of overall solutions or risk reduction.

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