

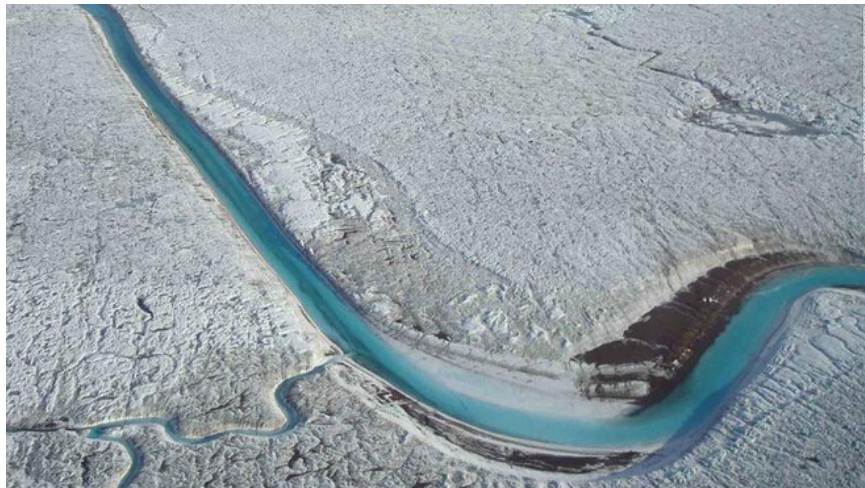
Warm sea currents beneath the Arctic ice are 'melting' the thick layer of ice, which can cause sea levels to rise by a meter

Sea level rise is caused by melting ice, but also because the sea ice is deep below

Scientists have long known that high air temperatures contribute to the melting of ice sheets in Greenland, the Arctic. But a new scientific report has uncovered another danger that is starting to attack the ice from below: Warm sea water moving beneath the glacier makes them melt faster and faster.

The findings were published this week in Nature Geoscience by scientists who have studied the "ice tongue" of the Nioghalvfjærdsfjorden glacier - otherwise known as the 79-degree North Glacier on the side. North Greenland.

An ice tongue is an ice that floats on the water without receiving any more ice from the sides of the ice. The ice tongue is being studied by scientists on more than 80 km long.



Ice tongue

The report revealed that a stream more than 1.5 km long brought warm ocean water from the Atlantic straight into the glaciers, which brought a large amount of heat into contact with the ice and accelerated the melting process.

"The cause of the increase in ice melting has been clarified," Janin Schaffer said in a statement addressing the findings. She is an oceanographer from the Alfred Wegener Institute in Germany and leads the research.

Scientists also discovered a similar current near another glacier in Greenland. That place recently had an ice tongue that detached and drifted into the sea.

What effect does warm sea water have on the Earth?

The decline in the mass of the ice sheets in Greenland is the only cause for accelerating global sea level rise. According to another report published in December in Nature, the ice sheets in Greenland are thawing seven times faster than in 1992.



The device used to measure sea temperature

This ice layer contains enough water to raise the sea level by more than seven meters above the present.

According to scientists, last summer, the Arctic witnessed record high temperatures and that caused the Greenland ice sheet to lose 11 billion tons of surface ice in just one day. The amount of dissolved water is equivalent to 4.4 million times the water in Olympic standard swimming pools.

According to Ruth Mottram, a meteorologist at the Danish Meteorological Institute, in July last year, the volume of ice sheets in Greenland dropped to 197 tons, equal to 80 million Olympic swimming pools.

Sea temperatures also broke a record in 2019. A report published in Advances, the Atmospheric Science section, said last year's seawater temperature was 0.075 degrees Celsius higher than the average in 1981- 2010. The author of the report asserts that the amount of heat that seawater has absorbed is equal to dropping five Hiroshima bombs per second over the past 25 years.

Due to the climate crisis, the sea has warmed up, leading to the occurrence of extreme climatic phenomena such as hurricanes. The result is greater rainfall than normal.

Seawater temperature also affects the stability of the marine ecosystem. It is likely to lead to a decline in the catch of fish in many places that depend on fishing.

According to CNN

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