

# Canada's last intact ice shelf collapses due to warming

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## 5,000-Year-Old Ice Caps Are Completely Gone

New satellite images from NASA show that Canada's St. Patrick Bay ice caps have completely disappeared. Researcher Mark Serreze said; "I can't say I was terribly surprised because we knew they were going, but it has happened really fast". In 2017 ...

Much of Canada's remaining intact ice shelf has broken apart into hulking iceberg islands thanks to a hot summer and global warming, scientists said.

Canada's 4000-year-old Milne Ice Shelf on the northwestern edge of Ellesmere Island had been the country's last intact ice shelf until the end of July when ice analyst Adrienne White of the [Canadian Ice Service](#) noticed that satellite photos showed

that about 43 per cent of it had broken off. She said it happened around July 30 or 31.

Two giant icebergs formed along with lots of smaller ones, and they have already started drifting away, White said.

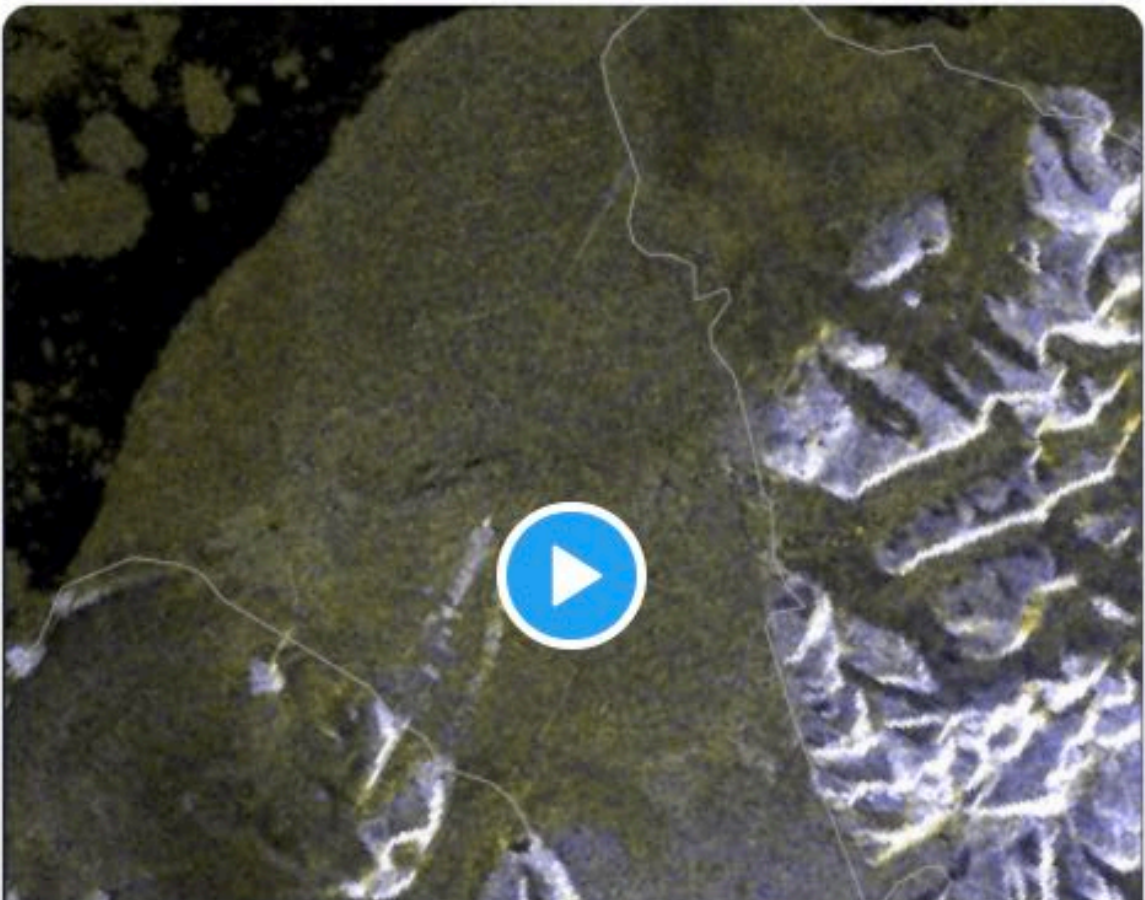
The biggest is nearly the size of Manhattan – 55 square kilometres and 11.5 kilometres long. They are 70 to 80 metres thick.



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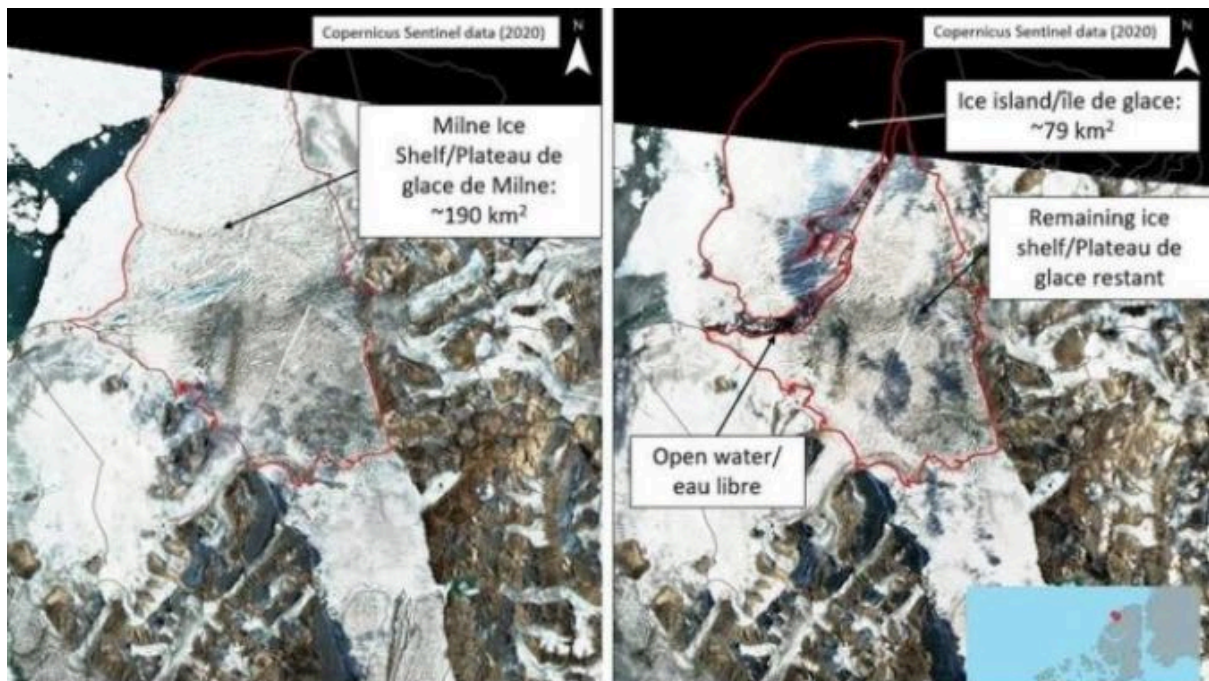


Satellite animation, from July 30 to August 4, shows the collapse of the last fully intact [#iceshelf](#) in [#Canada](#). The Milne Ice Shelf, located on [#EllesmereIsland](#) in [#Nunavut](#), has now reduced in area by ~43%. [#MilneIceIsland](#) [#seaice](#) [#Arctic](#) [#earthrightnow](#) [#glacier](#)



“This is a huge, huge block of ice,” White said. “If one of these is moving toward an oil rig, there's nothing you can really do aside from move your oil rig.”

The 187 square kilometre undulating white ice shelf of ridges and troughs dotted with blue meltwater had been larger than the District of Columbia but now is down to 106 square kilometres.



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Above normal air temperatures, offshore winds and open water in front of the ice shelf are all part of the recipe for ice shelf break up, according to the Canadian Ice Service.

Temperatures from May to early August in the region have been 5 degrees Celsius warmer than the 1980 to 2010 average, University of Ottawa glaciology professor Luke Copland said. This is on top of an Arctic that already had been warming much faster than the rest of globe, with this region warming even faster.

“Without a doubt, it's climate change,” Copland said, noting the ice shelf is melting from both hotter air above and warmer water below.

“The Milne was very special,” he added. “It's an amazingly pretty location.”



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Canada's last fully intact Arctic ice shelf has collapsed.

The Milne Ice Shelf lost some 40 percent of its area — and the last known epishelf lake in the northern hemisphere — over two days late last month [arctictoday.com/canadas-last-f...](https://arctictoday.com/canadas-last-f...)



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Ice shelves are hundreds to thousands of years old, thicker than long-term sea ice, but not as big and old as glaciers, Copland said.

Canada used to have a large continuous ice shelf across the northern coast of Ellesmere Island in the Canadian territory of Nunavut, but it has been breaking apart over the last decades because of man-made global warming, White said.

By 2005 it was down to six remaining ice shelves but “the Milne was really the last complete ice shelf,” she said.

“There aren't very many ice shelves around the Arctic any more,” Copland said. “It seems we've lost pretty much all of them from northern Greenland and the Russian Arctic. There may be a few in a few protected fjords.”