

Hot summers causing arctic sinkholes as permafrost thaws rapidly: study

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Arctic ice faces trouble from above and below 04:56

(CNN)Arctic sinkholes are appearing across the Canadian High Arctic as [permafrost](#) -- ice expected to be frozen year-round -- thaws and collapses due to [climate change](#), according to research [published](#) Monday.

Researchers found maximum thaw depths had already exceeded what they had expected to occur by 2090, according to the [report](#) published in Geophysical Research Letters journal.

At one site, Mould Bay, the level of thawing was 240% higher than historic norms.

Between 2003 and 2016, the scientists found there had been between 150% and 240% more thawing of permafrost on average in the Canadian High Arctic, compared with the period between 1979 and 2000.



In this aerial image, thermokarst lakes are seen on June 21, 2017 in Alaska, United States.

Scientists blamed a series of warm summers for damaging the "very cold permafrost," noting that there was little soil or vegetation to buffer the permafrost from the temperature changes.

Between 2004 and 2015, the scientists observed thermokarsts at three sites along a 700 kilometer (435 mile) stretch in the Canadian High Arctic. [Thermokast](#) is a term for a type of land surface that occurs when ice melts in permafrost, creating small sinkhole-like pits and valleys as the ground settles unevenly.



A [study in May](#) found that permafrost is melting so fast in the Arctic that it's not only ripping up the landscape -- it's also wrecking scientific equipment and making climate change worse.

As permafrost melts, it releases carbon and greenhouse gases into the atmosphere. Because Arctic permafrost is now melting faster than before, higher amounts of greenhouse gases and carbon could be released. That would warm the planet up more quickly.

