

How did a small town in Canada become one of the hottest places on Earth?

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The unprecedented heatwave in the Pacific north-west risks becoming the new normal if we don't act now

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On Sunday, the small mountain town of Lytton, British Columbia, became one of the hottest places in the world. Then, on Monday, Lytton got even hotter – 47.9C (118F) – hotter than it's ever been in Las Vegas, 1,300 miles to the south. And by Tuesday, 49.6C (121F).

Lytton is at 50 deg N latitude – about the same as London. This part of the world should never get this hot. Seattle's new all-time record of 108F, also set Monday, is hotter than it's ever been in Miami. In Portland, the new record of 116F would beat the warmest day ever recorded in Houston by nearly 10 degrees.

This heat wave was a perfect storm long in the making. After centuries of fossil fuel burning and decades of warnings from scientists, it's time to say it: we are in a climate emergency.

It's the mountains of the Pacific coast that have had an essential and unique role in making this particular heat wave possible. Climate change is not just warming the surface of the planet, it's warming Earth's entire troposphere – the lowest layer of the atmosphere where all our weather occurs. That's particularly true in mountainous areas, where temperatures are rising even faster than elsewhere. When snow and ice recedes or even disappears from mountains, the bare soil beneath can warm unimpeded. [A 2015 study](#) found that mountainous areas above 2,000 meters (6,500ft) are warming about 75% faster than places at lower elevations.

Warmer mountains along with [the mega-drought now plaguing western North America](#) – the most widespread severe drought on record – contributed to a high pressure “heat dome” that has been self-reinforcing this week to create truly extreme conditions along the Pacific coast. Dry, descending air rushing down the mountain slopes offshore towards the ocean created a literal pressure cooker, sending temperatures soaring to never-before-seen values.

Downstream of Lytton, flood warnings are now in effect for the river valleys as sudden snow and ice melt has created a torrent of rushing water. For the time being, Canada's glaciers are melting so fast they're flooding out homes under clear skies.

The imagery we should remember from this heat wave isn't swimming pools and fountains, it's friends and neighbors [sharing air conditioning](#) amid a pandemic in a city that's 40 degrees warmer than normal. It's [young people braving heat stroke](#) to demand

climate action from a president who promised it to them. It's the anxiety of not knowing when or where the next heat wave will be, but knowing that it's coming. It's about surviving a society where decades of racial segregation means that redlined neighborhoods are 15 degrees hotter than others.

These are the kinds of events that should open our eyes and recognize that climate change is not a science issue, it's a human rights issue.

While the temperatures have fallen in Seattle and Portland, this heat wave continues to rage for folks in eastern Washington. Farmworkers in the Yakima Valley will be dealing with temperatures over 100F (38C) until at least Monday – six more days. In parts of Pakistan and along the shores of the Persian Gulf, heat waves [are already hitting temperatures that are too hot for even healthy people to survive outdoors](#).

This is a public health emergency.

If climate is what defines a place – the shape and character of our neighborhoods, the kinds of plants and animals that live nearby, the activities we can enjoy – then we are changing what makes us, us.

“It's warmer in parts of western Canada than in Dubai,” said David Phillips, senior climatologist for Environment Canada [in an interview with CTV](#). “I mean, it's just not something that seems Canadian.”

The most shocking part is that all this is happening with just two degrees Fahrenheit of global warming in the 150 years since we started burning fossil fuels on a large scale. On our current path, we're heading for [another three to five degrees of warming in half that time](#).

At this point, building a world that can thrive will require “rapid, far-reaching and unprecedented changes in all aspects of society” according to the Intergovernmental Panel on Climate Change, the world's leading body of climate scientists. [Climate change](#) isn't just a thing that's happening, it's a series of choices made by actual people who are sharing this planet with us. Indigenous resistance to an economy built on extraction needs to be scaled up and combined with climate reparations to the people and places who are most affected.

Tuesday will likely be the hottest day in Canada's history for a third day in a row – there's an outside chance of reaching 50C (122F) in Lytton.

We are in a climate emergency. We can't wait for other people, we've got to do this ourselves. We were born at just the right moment to help change everything.

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