'The warmth is really unheard of:' Much of eastern Europe, including Helsinki and Moscow, saw warmest January on record
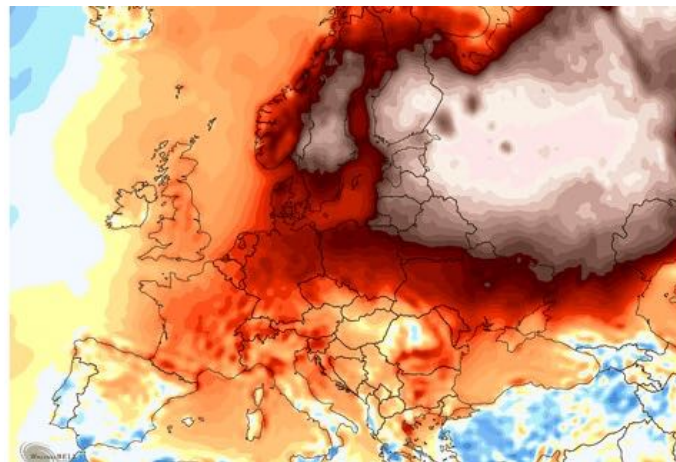
Parts of the region could see their warmest winter in recorded history.

Europe's temperature difference from average in 2020. (WeatherBell)

By Matthew Cappucci
February 3 at 1:35 PM

Although the calendar has flipped to a new decade, there has been no slowing in the growing list of locations experiencing record temperatures amid a quickly warming climate. Much of Eastern Europe just concluded its warmest January on record, coming on the heels of a toasty December and making the 2019-2020 winter season a contender for warmest ever observed.

The zone from Scandinavia to western Russia has endured some of the most anomalous warmth, with many areas seeing temperatures averaging 10 to 15 degrees (5.5 to 8.3 Celsius) above normal since Jan. 1. Moscow's temperatures have averaged 13.3 degrees (7.4 Celsius) above normal.

Helsinki made it above freezing every day in January — bizarre, considering its average January high is only 30 degrees (minus-1.1 Celsius). The typical January morning low? Twenty degrees (minus-6.7 Celsius).

January 2020 was easily record-warm in Helsinki, Finland 🇫🇮

The previous monthly record set in 1930 was crushed by incredibly 1.6°C (2.88°F), being now 3.0°C. pic.twitter.com/l1e2MUw1IM
— Mika Rantanen (@mikarantane) February 1, 2020

But not this year. Only seven hours since the start of the year have been below 20 degrees, the month briefly dipping to 17.6 degrees (minus-8 Celsius) on Jan. 10. By contrast, some 723.5 hours have climbed above 30 degrees, a 103 to 1 ratio.

[Earth's temperatures are skewed hot. Expected cool weather in a few spots doesn't change that.]

"The lack of snow and the warmth is really unheard of," wrote Mika Rantanen, a research meteorologist at the Finnish Meteorological Institute, in a Twitter direct message. "Monthly records were not just broken, they were shattered with large margins."

For the first time on record, we had January when Oslo, Stockholm, Helsinki and Copenhagen were above freezing (0°C) every day of the month.

In addition, all but Oslo were totally snow-free.

Satellite image on 22 Jan 2020. pic.twitter.com/snvdwfCuOy
— Mika Rantanen (@mikarantane) February 1, 2020

Helsinki wasn't the only Scandinavian city to see temperatures rise above freezing every day. So did Oslo, Stockholm and Copenhagen. And according to Rantanen, all but Oslo were totally snow-free.

Oslo recorded a little more than an inch of snow on the final day of January.

"In our capital city Helsinki the month was first January without snow on record," he wrote. Records in Helsinki date back to 1845.

And Helsinki *should* be reaching its coldest point in the year, which ordinarily occurs toward the end of January into February. Instead, January was about 12 to 13 degrees (6.7 to 7.2 Celsius) warmer than the 1980 to 2010 average in southern Finland, according to Rantanen.

"The warmth and snowlessness in southern Finland was something which we haven't experienced before. January 2020 was very extraordinary in Finland."

First time on record without any snow. First time on record every single day above 0°C.

Unprecedented month on many scales. https://t.co/wb6fT4Lepf

— Mika Rantanen (@mikarantane) January 31, 2020

Meanwhile, neighboring Sweden's ski industry is suffering. Not only has much of the existing snow melted, but with nighttime lows struggling to fall much below 32 degrees (0 Celsius), it's been a challenge to even *make* artificial snow.

The anomalous warmth has even helped cherry trees in Sweden bloom early, opening their buds to reveal springlike flowers in the heart of winter. According to Sweden's the Local, temperatures soared to 51 degrees (10.6 Celsius) in Orebro on Jan. 9, marking the hottest January day there since 1858.

Moscow also logged its warmest January on record. Records there extend nearly two centuries. "[T]he average January temperature in the Russian capital is in positive territory — at plus 0.1 degrees [Celsius] — for the first time ever," reported the Moscow Times.

January's average temperature in Moscow in 2020 exceeded the previous record holder by an

unusually large margin of nearly two degrees Fahrenheit.

The mild January comes just after Moscow's warmest December on record, during which the city was reportedly forced to truck in fake snow for New Year's celebrations.

What's to blame for these toasty temperatures?

"I think it has been the positive [North Atlantic and Arctic oscillations] that has been the dominant reason," wrote Rantanen, "but climate change has of course contributed to the warmth."

When the North Atlantic and Arctic oscillations are positive, frigid air and the polar vortex remain confined over the Arctic. Computer models project the indexes to remain strongly positive into mid-February, meaning a likely continuation of milder-than-normal conditions.

The same weather pattern resulted in a mild January over much of the United States, where temperatures are also expected to remain above normal for the first part of February.

In Europe, if this pattern does not break, this winter will probably go down as the region's warmest in recorded history.

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Matthew Cappucci is a meteorologist for Capital Weather Gang. He earned a B.A. in atmospheric sciences from Harvard University in 2019, and has contributed to The Washington Post since he was 18. He is an avid storm chaser and adventurer, and covers all types of weather, climate science, and astronomy. **Follow**