

MELTING GLACIERS RELEASING ANCIENT PATHOGENS COULD CAUSE THE NEXT EPIDEMIC

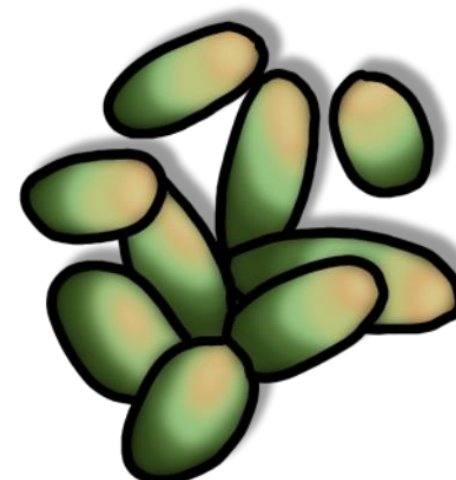
Glaciers are melting...



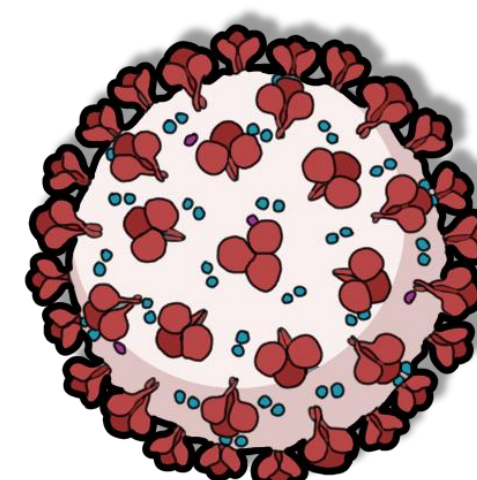
Our planet's glaciers and major bodies of ice are melting at unprecedented rates, including the 1'800 glaciers in Switzerland. It is estimated that in the next 30 years, half of the Swiss glaciers will have melted, all of them by the year 2'100.

...releasing possibly dangerous pathogens...

Every year it is estimated that 4 sextillion microbes are being released from the melting cryosphere. Only few microbes are pathogenic and even fewer can survive the harsh glacial conditions. However, due to the sheer volume of released microbes, this poses a real risk of disease outbreak. My analysis identified the influenza virus and yersina pestis bacteria (plague) as most dangerous for such a scenario.



Yersina pestis

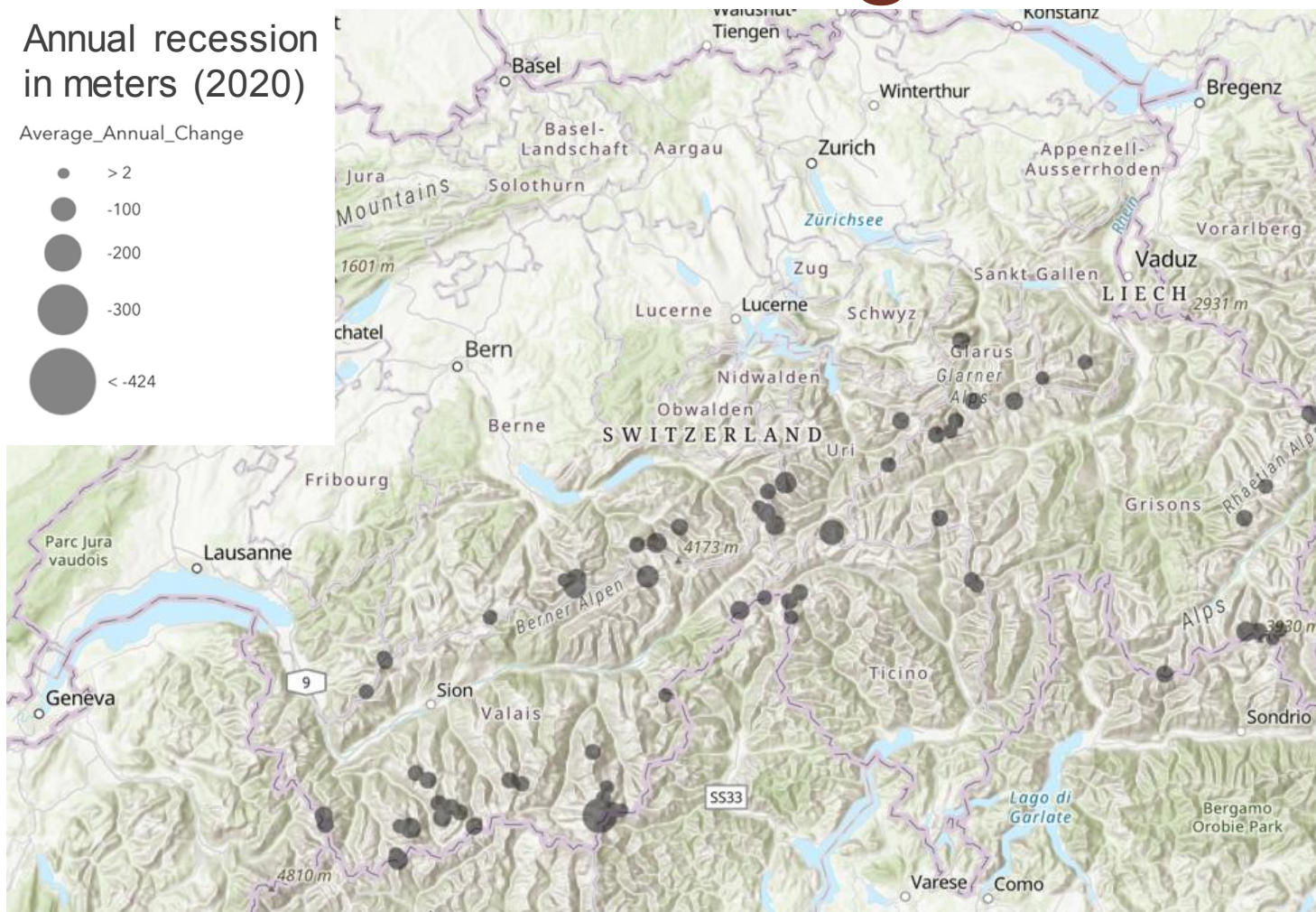


Influenza virus

... endangering the Swiss population, particularly in the Zermatt region.

Annual recession in meters (2020)

Average_Annual_Change



In order to identify the region most in danger of such an outbreak, I analyzed the glaciers in Switzerland based on various factors including the recession rate and proximity to surrounding municipalities. These factors formed an index that pointed to the Findelgletscher in the Zermatt region, as posing the biggest danger.

Switzerland needs to act!

Measures need to be taken to mitigate this risk. These include launching an awareness campaign to alert the population, monitoring and screening the meltwater as an early warning system, and expanding on existing emergency response plans to be prepared in case of an outbreak.



Watch this video to learn more

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