



# Warming imperils clouds that deter 'hothouse' conditions

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## **It could melt polar ice and lift sea levels by tens of metres**

- Marine clouds that protect us from hothouse Earth conditions by reflecting sunlight back into space could break up and vanish if CO<sub>2</sub> in the atmosphere triples, researchers warned.
- So-called stratocumulus clouds cover about 20% of subtropical oceans, mostly near western seabords such as the coasts of California, Mexico and Peru.
- When they disappear, Earth warms dramatically, by about eight degrees Celsius — in addition to the global warming that comes from enhanced greenhouse concentrations alone, according to the study.
- A temperature increase of that magnitude would melt polar ice and lift sea levels tens of metres.
- The last time the planet was that hot, some 50 million years ago during the Eocene Epoch, crocodiles roamed the Arctic.
- Even half that much warming would overwhelm humanity's capacity to adapt, scientists say.
- A barely one-degree increase since the mid-19th century — mostly in the last 50 years — has been enough to worsen heatwaves, droughts, and flooding, along with cyclones engorged by rising seas.
- The 2015 Paris climate treaty enjoins nations to cap the rise in temperatures at “well below” 2C.

The Hindu