Last month was hottest February ever recorded. It's the ninth-straight broken record

March 7 2024, by Seth Borenstein

A man buys a cool drink from a roadside vendor on a sunny day in Mahawewa, a village north of Colombo, Sri Lanka, Feb. 29, 2024. Earth has exceeded global heat records in February, according to the European Union climate agency Copernicus. Credit: AP Photo/Eranga Jayawardena, File

For the ninth straight month, Earth has obliterated global heat records—with February, the winter as a whole and the world's oceans setting new high-temperature marks, according to the European Union climate agency Copernicus.

The latest record-breaking in this climate change-fueled global hot streak includes sea surface temperatures that weren't just the hottest for February, but eclipsed any month on record, soaring past August 2023's mark and still rising at the end of the month. And February, as well the previous two winter months, soared well past the internationally set threshold for long-term warming, Copernicus reported Wednesday.

The last month that didn't set a record for hottest month was in May 2023 and that was a close third to 2020 and 2016. Copernicus records have fallen regularly from June on.

February 2024 averaged 13.54 degrees Celsius (56.37 degrees Fahrenheit), breaking the old record from 2016 by about an eighth of a degree. February was 1.77 degrees Celsius (3.19 degrees Fahrenheit) warmer than the late 19th century, Copernicus calculated. Only last December was more above pre-industrial levels for the month than February was.

In the 2015 Paris Agreement, the world set a goal of trying to keep warming at or below 1.5 degrees Celsius (2.7 degrees Fahrenheit). Copernicus' figures are monthly and not quite the same measurement system for the Paris threshold, which is averaged over two or three decades. But Copernicus data shows the last eight months, from July 2023 on, have exceeded 1.5 degrees of warming.

Climate scientists say most of the record heat is from human-caused climate change of carbon dioxide and methane emissions from the burning of coal, oil and natural gas. Additional heat comes from a

natural El Niño, a warming of the central Pacific that changes global weather patterns.

"Given the strong El Niño since mid-2023, it's not surprising to see above-normal global temperatures, as El Ninos pump heat from the ocean into the atmosphere, driving up air temperatures. But the amount by which records have been smashed is alarming," said Woodwell Climate Research Center climate scientist Jennifer Francis, who wasn't part of the calculations.

A man paddles in the Mediterranean Sea in Barcelona, Spain, Feb. 4, 2024. Earth has exceeded global heat records in February, according to the European Union climate agency Copernicus. Credit: AP Photo/Emilio Morenatti, File

"And we also see the ongoing 'hot spot' over the Arctic, where rates of warming are much faster than the globe as a whole, triggering a cascade of impacts on fisheries, ecosystems, ice melt, and altered ocean current pattern s that have long-lasting and far-reaching effects," Francis added.

Record high ocean temperatures outside the Pacific, where El Niño is focused, show this is more than the natural effect, said Francesca Guglielmo, a Copernicus senior climate scientist.

The North Atlantic sea surface temperature has been at record level—compared to the specific date—every day for a solid year since March 5, 2023, "often by seemingly-impossible margins," according to University of Miami tropical scientist Brian McNoldy.

Those other ocean areas "are a symptom of greenhouse-gas trapped heat accumulating over decades," Francis said in an email. "That heat is now emerging and pushing air temperatures into uncharted territory."

"These anomalously high temperatures are very worrisome," said Cornell University climate scientist Natalie Mahowald. "To avoid even higher temperatures, we need to act quickly to reduce CO_2 emissions."

This was the warmest winter—December, January and February—by nearly a quarter of a degree, beating 2016, which was also an El Niño year. The three-month period was the most any season has been above pre-industrial levels in Copernicus record keeping, which goes back to 1940.

Francis said on a 1-to-10 scale of how bad the situation is, she gives what's happening now "a 10, but soon we'll need a new scale because what's a 10 today will be a five in the future unless society can stop the buildup of heat-trapping gases."