

Climate Change & Biodiversity: Coral bleaching event now biggest in history - and about to get worse

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US weather agency says bleaching is now the most widespread on record and is likely to continue for unprecedented third year

The coral bleaching event sweeping the globe [[1](#)] and destroying vast tracts of valuable coral reef is now officially the most widespread in recorded history, and is likely to continue for an unprecedented third year, according to the US weather agency.

For the coming four months, National Oceanographic and Atmospheric Administration says its forecasts show warm ocean temperatures are expected to cause bleaching in the northern hemisphere, including around Hawaii, Micronesia, the Florida Keys and Puerto Rico.

“All northern hemisphere US-coral reefs are on alert for coral bleaching this year,” said Mark Eakin, coordinator of Coral Reef Watch at NOAA. “If we see bleaching in Florida or Hawaii this year it will be three years in a row.”

Coral in every major reef region has already experienced severe bleaching. About 93% of the reefs on Australia’s Great Barrier Reef have been affected [[2](#)], and almost a quarter of the reef on the 2,300km stretch is now dead [[3](#)].

Hawaii and the Florida Keys, which will probably be hit by bleaching in the coming months, have been affected twice already, in mid-2014 and mid-2015. Reefs in the Indian Ocean around the Maldives [[4](#)] and Western Australia [[5](#)] have suffered severe bleaching, as have those in the rest of the Pacific, the Red Sea and the Caribbean.

Although the bleaching event was already the longest in recorded history and was predicted to run past the middle of the year, NOAA’s latest climate model-based forecasts now suggest it will run at least through to the end of 2016.

Coral bleaches when water temperatures are a couple of degrees above the normal summer maximum for longer than about two weeks. Climate change has caused global sea surface temperatures to rise by about 1C over the past century, pushing corals closer to their bleaching threshold. A strong El Niño [[6](#)], as well as other weather phenomena, raised the temperature further this year.

“It’s time to shift this conversation to what we can and are doing to conserve these amazing organisms in the face of this unprecedented global bleaching event,” said the director of NOAA’s coral reef conservation program, Jennifer Koss.

Coral reefs can often recover from bleaching when there is enough time between bleaching events,

provided there aren't too many other stressors [7], such as overfishing and water pollution.

Relieving the local stressors was important, but not enough, Koss said. "Globally, we need to better understand what actions we all can take to combat the effects of climate change."

Noaa tracks the water temperature from satellite data and uses that to estimate the probable bleaching it will cause. Eakin said the information was then given to scientists and managers on the ground.

"The biggest bleaching threat over the next six months is to the reefs in two US freely associated states: Palau and the Federated States of Micronesia," he said. "Islanders there are very dependent on their coral reefs and diving tourism is a major contributor to their economies. This event may have major ecological and economic impacts on those islands."

He added: "It is crucial that scientists and the public continue in-water monitoring to track the actual extent and severity of the bleaching it causes."

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P.S.

* The Guardian. Monday 20 June 2016 22.01 BST Last modified on Monday 4 July 2016 05.14 BST:
<https://www.theguardian.com/environment/2016/jun/21/coral-bleaching-event-now-biggest-in-history-and-about-to-get-worse>

Footnotes

[1] <https://www.theguardian.com/environment/2016/feb/23/global-coral-bleaching-event-threatens-great-barrier-reef>

[2] <https://www.theguardian.com/environment/2016/apr/19/great-barrier-reef-93-of-reefs-hit-by-coral-bleaching>

[3] <https://www.theguardian.com/environment/2016/jun/03/agencies-say-22-of-barrier-reef-coral-is-dead-correcting-misinterpretation>

[4] <https://www.theguardian.com/environment/2016/jun/01/coral-bleaching-spreads-to-maldives-devastating-spectacular-reefs>

[5] <https://www.theguardian.com/environment/2016/apr/22/coral-bleaching-spreads-from-great-barrier-reef-to-western-australia>

[6] <https://www.theguardian.com/global-development/2016/feb/17/el-nino-leaves-100-million-people-hungry-short-of-water-droughts-floods-worldwide>

[7] <https://www.theguardian.com/environment/2016/may/19/great-barrier-reef-needs-10bn-for-cha>

[nce-of-survival-scientists-say](#)