

Scientists mobilize as bleaching resumes on Great Barrier Reef

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Staghorn coral (*Acropora cervicornis*). Credit: Wikipedia, CC BY 2.5

Coral researchers are remobilising to conduct aerial and underwater surveys along the Great Barrier Reef and elsewhere in Australia as coral bleaching reappears for the second year in a row. The decision coincides with the release today of a study in the prestigious journal *Nature* warning the Reef's resilience is rapidly waning.

Scientists and Reef managers from ten research institutions across Australia, representing the National Coral Bleaching Taskforce, have returned to the Reef only one year after scorching temperatures caused the worst [coral bleaching](#) event on record in 2016. Teams will spend the next few weeks in the air and underwater measuring the extent of the damage from this summer compared to last.

"We're hoping that the next 2-3 weeks will cool off quickly, and this year's [bleaching](#) won't be anything like last year. The severity of the 2016 bleaching was off the chart," explains lead author and Taskforce convener, Prof. Terry Hughes (ARC Centre of Excellence for Coral Reef Studies). "It was the third major bleaching to affect the Great Barrier Reef, following earlier heatwaves in 1998 and 2002. Now we're gearing up to study a potential number four."

"We have now assessed whether past exposure to bleaching in 1998 and 2002 made reefs any more tolerant in 2016. Sadly, we found no evidence that past bleaching makes the corals any tougher."

While protecting reefs from fishing, and improving water quality is likely to help bleached reefs recover in the longer term, the study also revealed that it made no difference to the amount of bleaching during the extreme heatwave of 2016.

Co-author Dr Janice Lough, Senior Principal Research Scientist at the Australian Institute of Marine Science says, "average sea-surface temperatures for the Australian summer 2016 were the highest ever recorded on the Great Barrier Reef. In each of the three events since 1998, the pattern of bleaching matches exactly where the warmest water was each year. That allows us to predict when and where bleaching is likely to occur this year."

Global warming is the number one threat to the Reef. The bleaching in

2016 strongly reinforces the urgent need to limit climate change as agreed by world leaders in the Paris Agreement, and fully implement the Reef 2050 Plan to boost the Reef's resilience," says co-author Dr David Wachenfeld from the Great Barrier Reef Marine Park Authority.

"It broke my heart to see so many corals dying on northern reefs on the Great Barrier Reef in 2016," says Prof. Hughes, who led the expansive aerial surveys. "With rising temperatures due to global warming, it's only a matter of time before we see more of these events. A fourth event after only one year is a major blow to the Reef".

More information: Terry P. Hughes et al, Global warming and recurrent mass bleaching of corals, *Nature* (2017). [DOI: 10.1038/nature21707](https://doi.org/10.1038/nature21707)

Provided by ARC Centre of Excellence in Coral Reef Studies

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