

Huge swathe of Australian mangroves 'die of thirst'

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The die-back of mangrove swamps in Australia's Gulf of Carpentaria is believed to be the worst incident ever recorded

Thousands of hectares of mangroves in Australia's remote north "died of thirst" last year, scientists said Tuesday, in the largest climate-related incident of its kind ever recorded.

Some 7,400 hectares (18,000 acres), stretching 1,000 kilometres across

the semi-arid Gulf of Carpentaria, perished, according to researchers from Australia's James Cook University.

The so-called die-back—where mangroves are either dead or defoliated—was confirmed by aerial and satellite surveys, with subsequent analysis of weather and [climate records](#) leading to the conclusion that they died of thirst.

World-renowned mangrove ecologist Norm Duke, from James Cook University, said three factors came together to produce the unprecedented event.

"From 2011 the coastline had experienced below-average rainfalls, and the 2015/16 drought was particularly severe," he said as the findings were published in the Journal of Marine and Freshwater Research.

"Secondly the temperatures in the area were at record levels and thirdly some mangroves were left high and dry as the sea level dropped about 20 centimetres (eight inches) during a particularly strong El Nino."

El Nino is a [climate](#) phenomenon which occurs every four to five years, affecting rainfall patterns and causing both drought and flooding.



The 7,400 hectare die-back of mangroves in Australia's Gulf of Carpentaria has been confirmed by aerial and satellite surveys

Duke said these factors were enough to produce what scientists regard as the worst instance of climate-related die-back of mangroves ever reported.

"Essentially, they died of thirst," he said.

Mangroves play an important ecological role, not only protecting seagrass and corals by filtering water runoff from the land, but acting as breeding grounds for fish stock and absorbing large amounts of carbon from the atmosphere.

Duke said scientists now know that mangroves, like coral reefs, are vulnerable to changes in climate and [extreme weather events](#), with the

situation being monitored closely.

"The relative dominance of climate influences in this region is of critical interest to world observers of environmental responses to climate change," he said.

Researchers believe the die-back took place in late November or early December with passing fisherman and scientists conducting unrelated work the first to notice it in the sparsely-populated region.

Local rangers at the time reported that creatures like shellfish, which need the shade of the trees, were dying and that turtles and dugongs that are dependent on the ecosystem could soon starve.

Australia is home to some seven percent of the world's [mangroves](#).

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