

Climate study to focus on coral DNA

- *Kym Agius*
- *AAP*
- November 08, 2012 6:08PM



Scientists in Australia and Saudi Arabia will sequence the genomes of 10 coral species.

Source: AAP

THE genetic make-up of corals will be studied in Australia and Saudi Arabia to understand how they may one day be able to survive climate change.

Scientists say over the past century the world's water temperatures have increased by 0.8C, leading to increased acidity and coral bleaching.

Now researchers want to understand why some species die from bleaching in the Great Barrier Reef when temperatures rise in summer, but can survive in the Red Sea in Saudi Arabia, where the water is on average eight degrees hotter.

Scientists in both countries will sequence the genomes of 10 coral species across six different coral types, as well as their symbiotic algae and bacteria.

They want to understand how various genes operate to allow the same species of coral to live in different temperatures, and whether when a system is stressed different genes turn on or off, or adapt.

Dr Sue Meek, from Bioplatforms Australia, said scientists currently have no tools to understand what is happening to the coral.

She said more work is needed to make a difference in how corals could survive climate change and to discover whether their reproduction could be enhanced.

"It is a huge leap ... to having some sort of system which is going to protect the reef," she told reporters in Brisbane.

"But if we don't start somewhere and understand this basic relationship between corals and their symbiotic organisms, then we'll never be able to make any progress."

Only two coral species, from the more than 500 that exist, have had their DNA mapped.

Scientists are expected to start collecting species on the Great Barrier Reef in November while research has already begun in Saudi Arabia.

- See more at: <http://www.theaustralian.com.au/news/latest-news/climate-study-to-focus-on-coral-dna/story-fn3dxiwe-1226513071015#sthash.DdWbgcmR.dpuf>