

Predicting Coral Bleaching

Subject matter: interpret thermal threshold data for reefs in the northern, central and southern sections of the Great Barrier Reef in relation to the likelihood of a bleaching event.

Recommended reading: *Coral Reefs and Climate Change - The bigger picture* (p.234-235)

View video: *Coral Reefs and Climate Change - Coral bleaching*

IPCC Fourth Assessment Report: Climate Change 2007 section on Sea Surface Temperature:

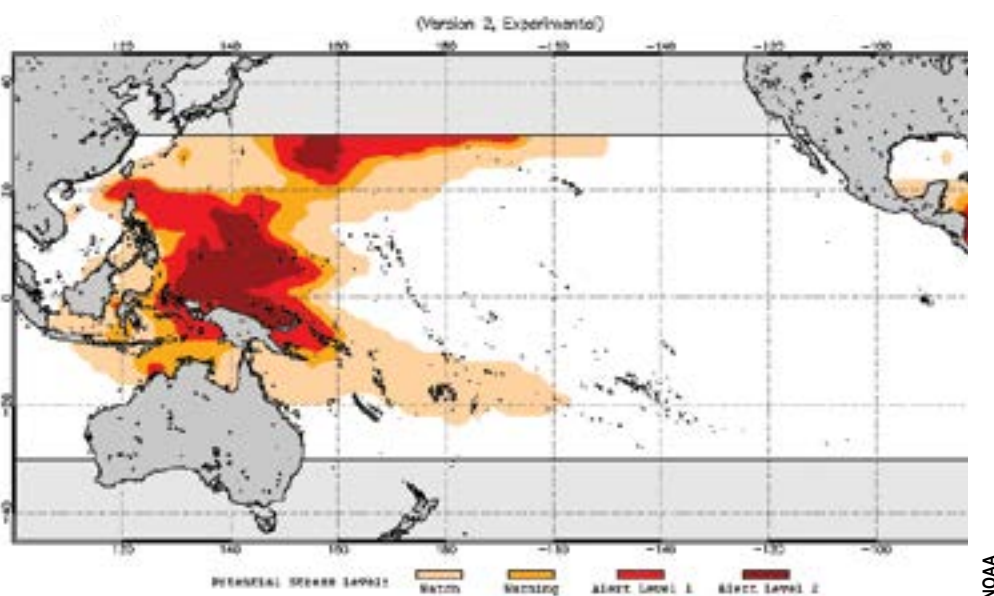
www.ipcc.ch/publications_and_data/ar4/wg1/en/ch3s3-2-2-3.html

Sea surface temperatures - Classroom

Read the IPCC Fourth Assessment Report: Climate Change 2007 section on Sea Surface Temperature:

Answer the following questions:

1. In figure 3.4b, what do the different lines in the graph represent?
2. Explain why sea surface temperatures are usually described as an 'anomaly' rather than a mean.



NOAA Coral Reef Watch - Classroom

Use <https://coralreefwatch.noaa.gov/satellite/index.php> and read more about Coral Reef Watch Satellite Bleaching Alert System. Familiarise yourself with the five status levels.

Go to outlook and click on the map that will show Indonesia, then click on "Pacific" to see Thermal Stress Outlook for the region.

1. Are there any areas on your map that show alert Level 2?
2. Are there any areas on your map that show warming?
3. Copy your map with the outlook of one month, 2 months and 3 months earlier. What are the differences? Has the bleaching forecast changed?

See also the exercises to calculate degree heating weeks on NOAA webpage

https://coralreefwatch.noaa.gov/satellite/education/tutorial/crw29_exercises.php