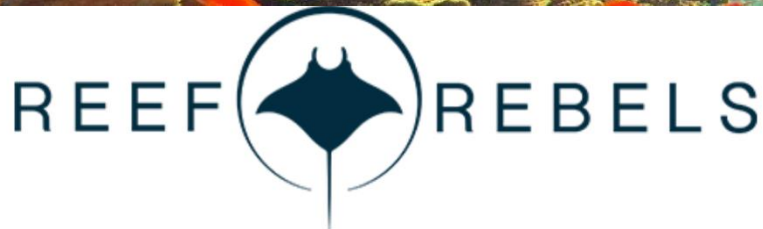
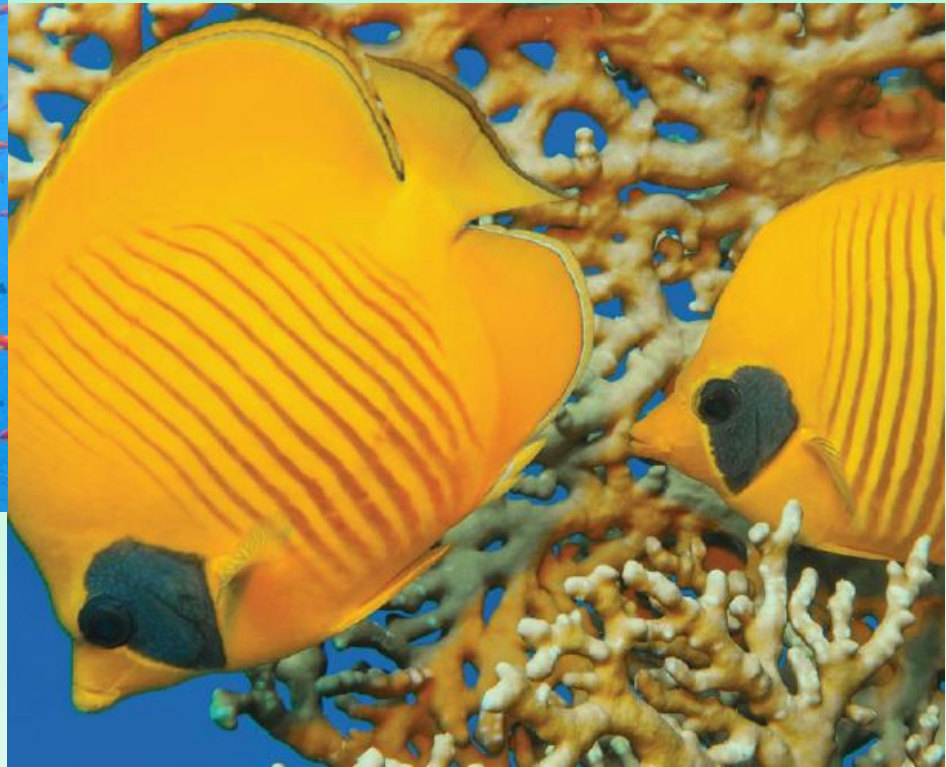


World's coral reefs are not declining

proof that the climate censors were wrong

Peter Ridd

Adjunct Fellow, Institute of Public Affairs



‘And then we wept’: Scientists say 93 percent of the Great Barrier Reef now bleached

The Washington Post
Democracy Dies in Darkness

Is the Great Barrier Reef doomed? Up to 99% of coral is at risk of vanishing by 2025 due to global warming, new report says

Daily Mail
AUSTRALIA

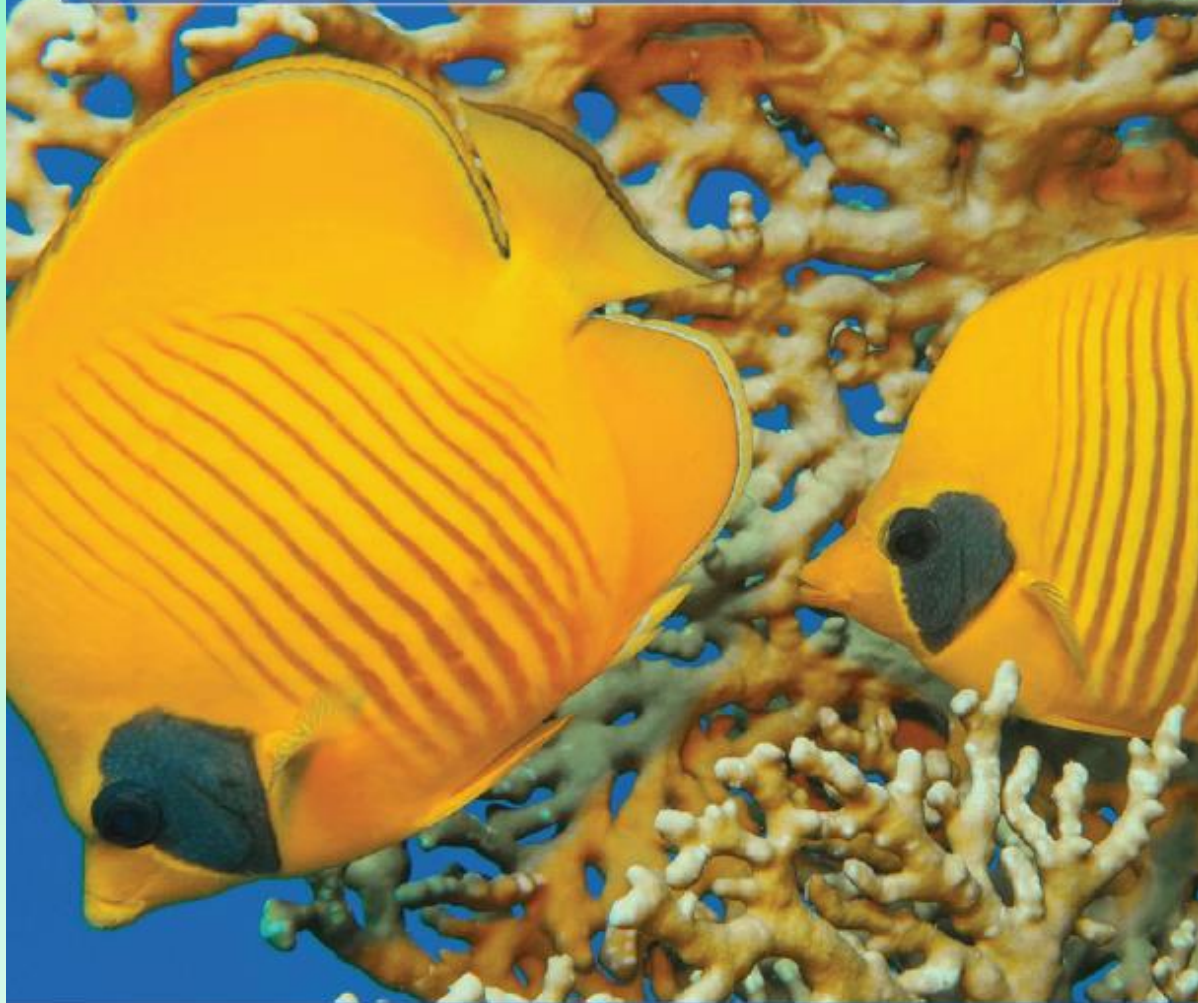
Great Barrier Reef’s future dealt blow as study finds only 2% escaped coral bleaching

The Guardian

CORAL IN A WARMING WORLD

CAUSES FOR OPTIMISM

Peter Ridd



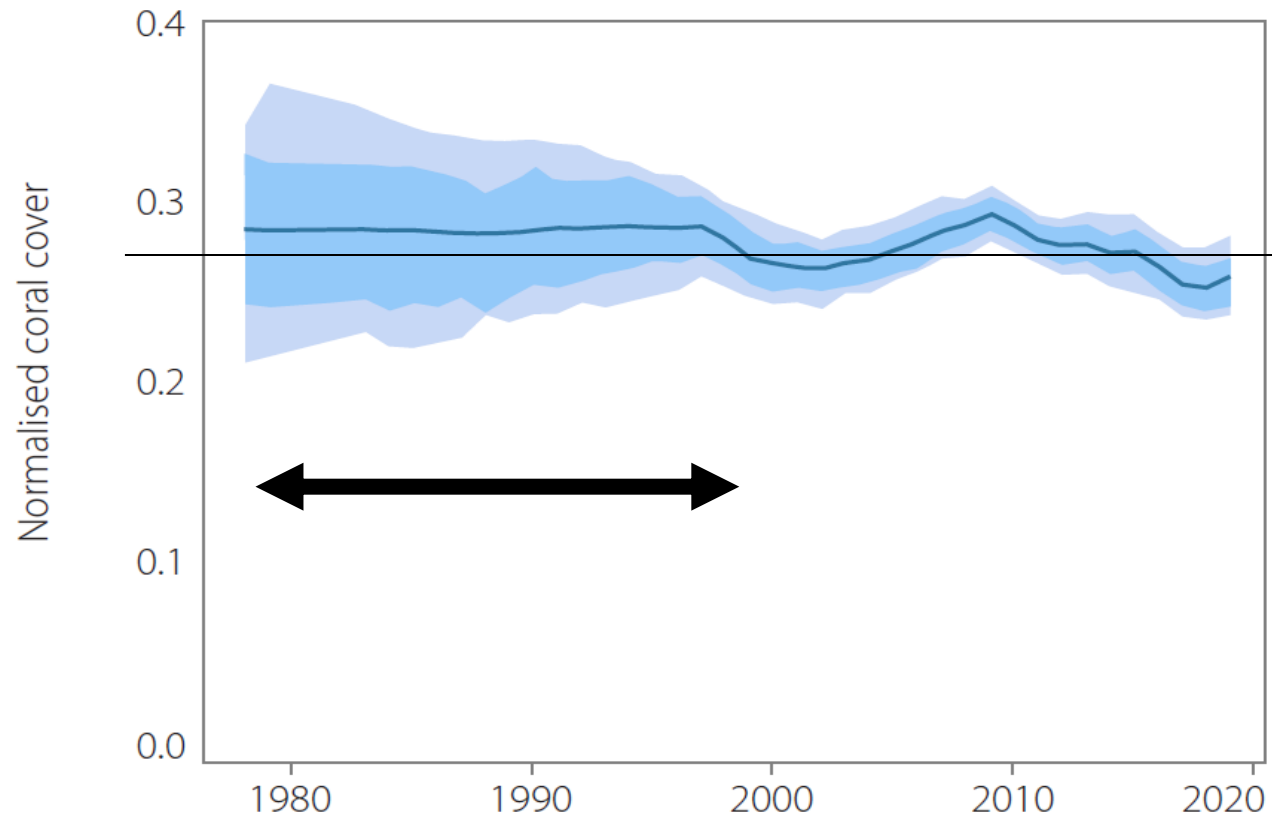
**Much of the information
In this talk can be found
in this GWPF report.
February 2023**

Let us start at the end

Global average coral

Figure 8: Global cover of hard coral

Estimated global average cover of hard coral (solid line) and associated 80% (darker shade) and 95% (lighter shade) credible intervals, which represent levels of uncertainty. Graph redrawn from GCRMN data report. Note, data before 1998 has very high uncertainty due to low number of measurements and problems with randomisation of sampling sites.

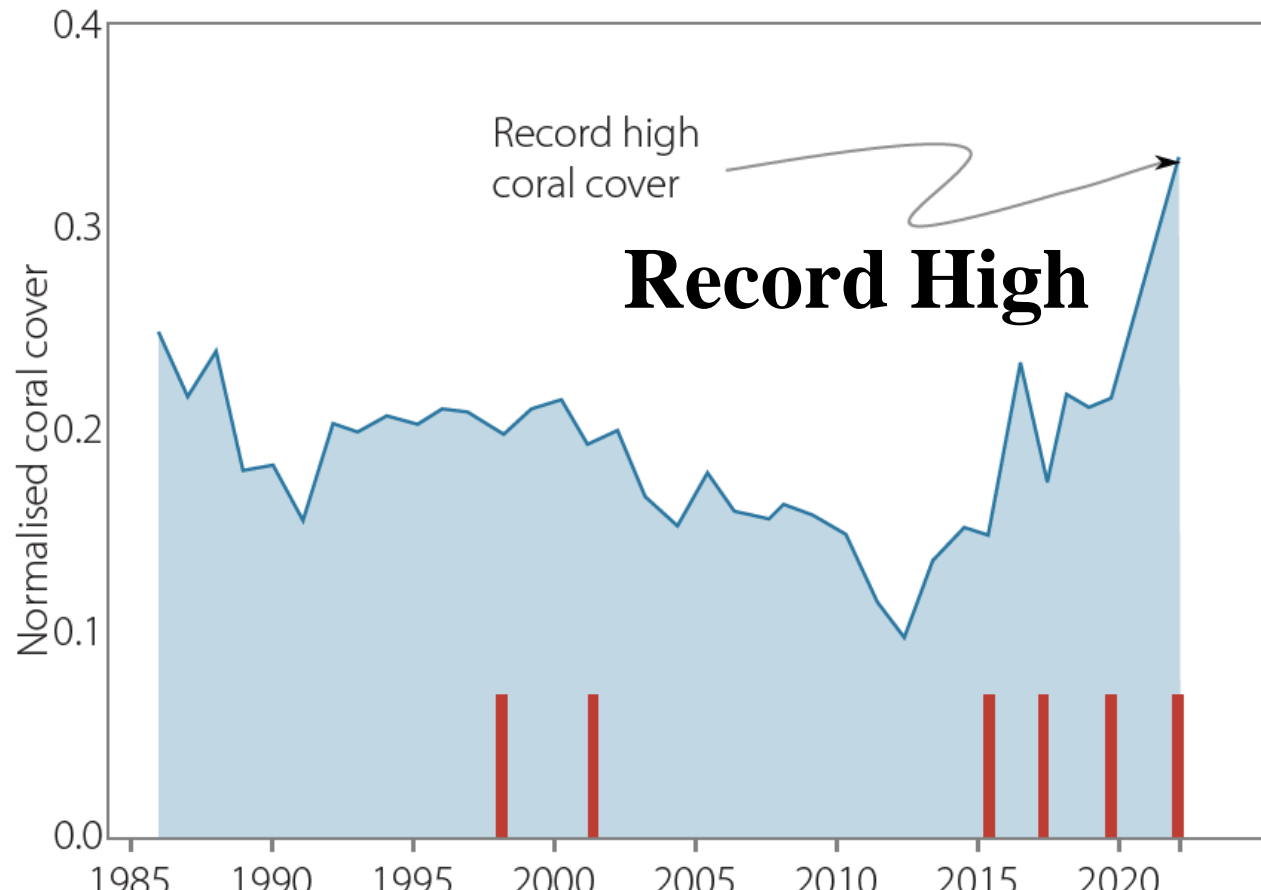


The Great Barrier Reef

Figure 4: Coral cover for the Great Barrier Reef

As measured by the AIMS Long Term Monitoring Program. Coral is a slow growing organism,⁹² so this graph is proof that institutions claiming major coral loss due to bleaching grossly exaggerated. Margin of uncertainty ~0.04.

Major bleaching event announced



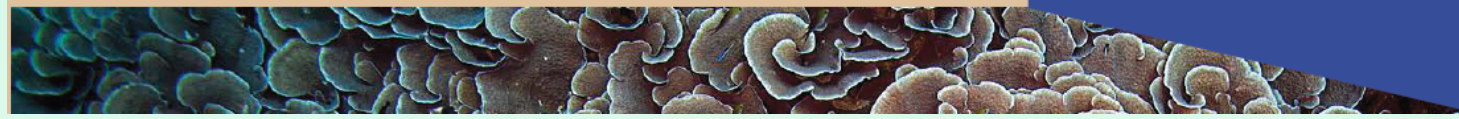
Data Sources:



Status of Coral Reefs of the World: 2020

Chapter 1. Introduction

Edited by: David Souter, Serge Planes, J  r  my Wicquart, Murray Logan, David Obura and Francis Staub



Data Sources:



[Research topics](#)

[About](#)

[Partnerships](#)

[Information Centre](#)

[Data](#)

[Careers](#)

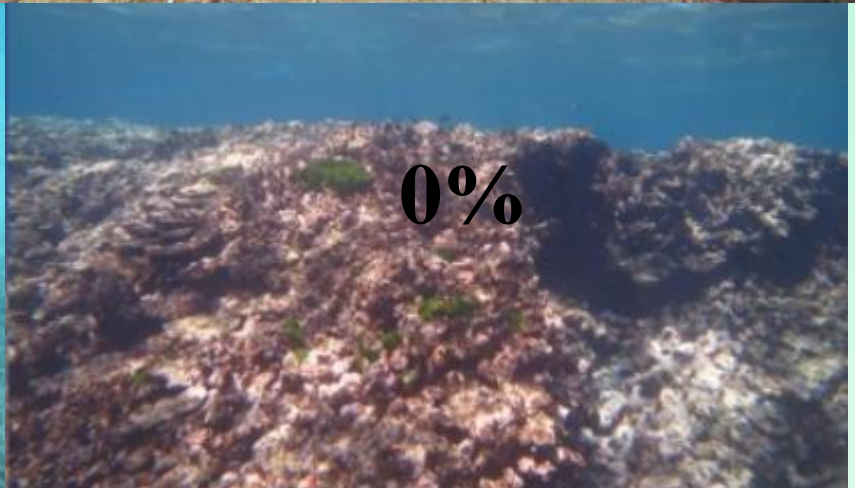
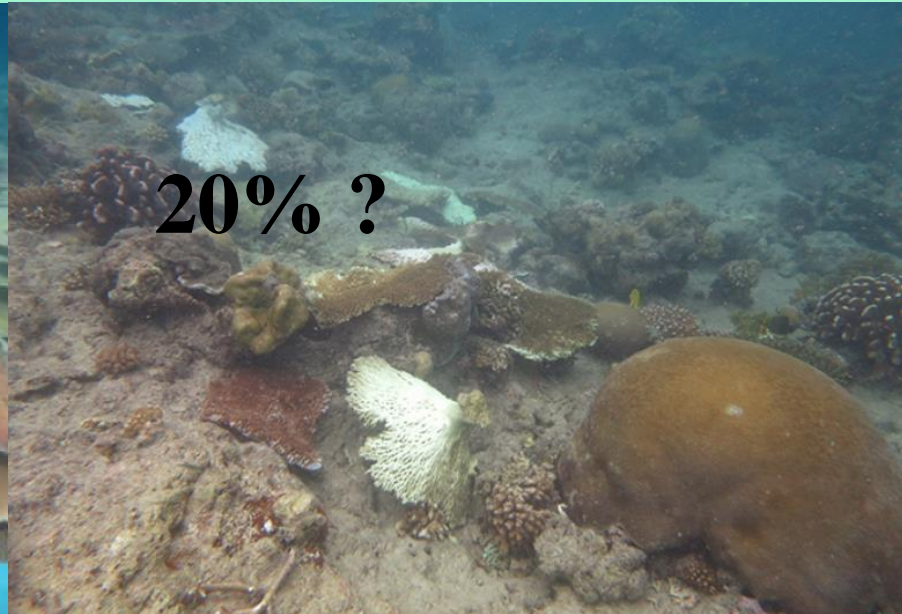


Long-Term Monitoring Program

The most comprehensive and extensive record of coral status on any reef ecosystem



What is coral cover

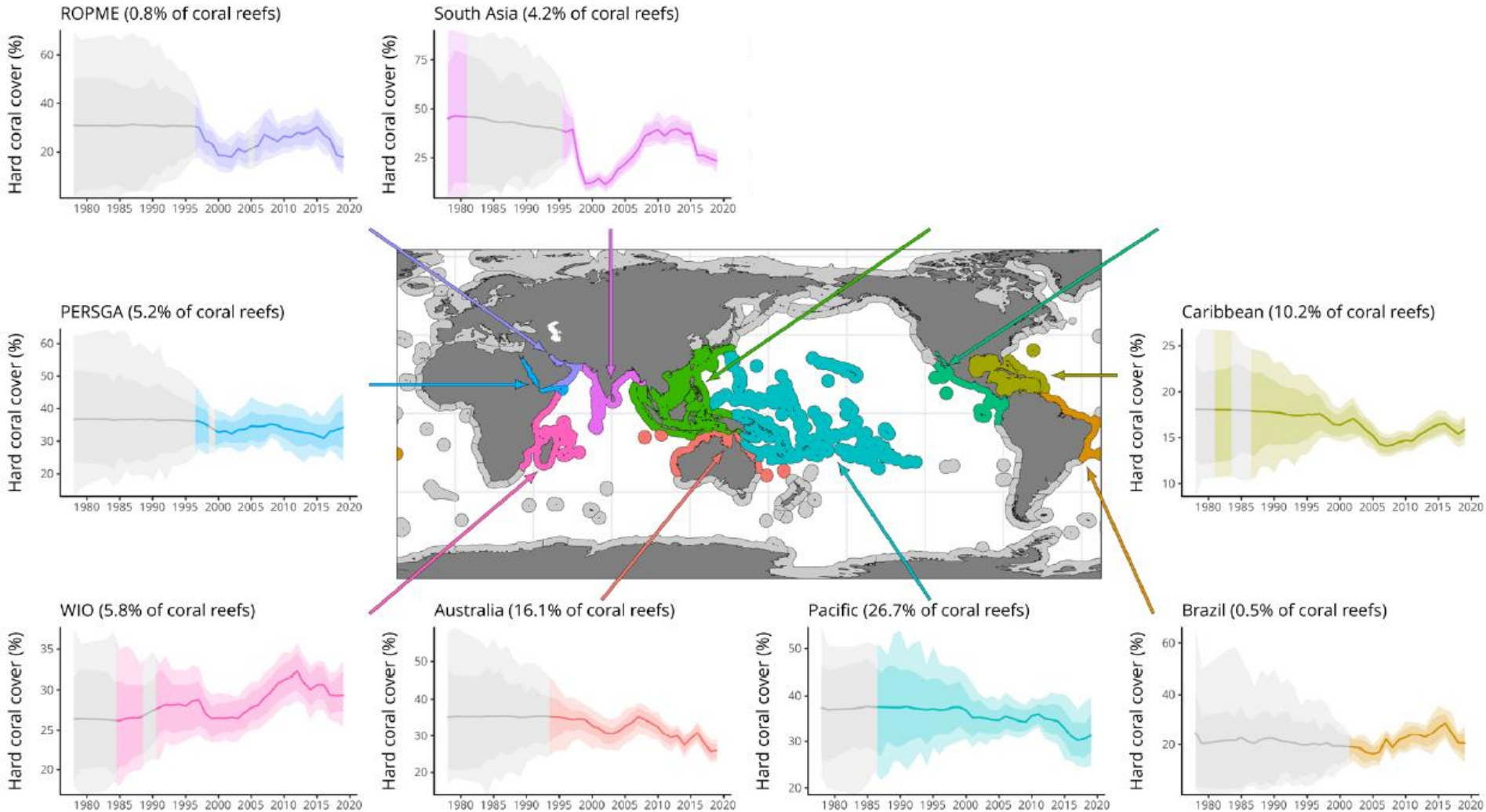


Coral cover is never 100%
Lots of sand and other
organisms



Dead from sealevel fall

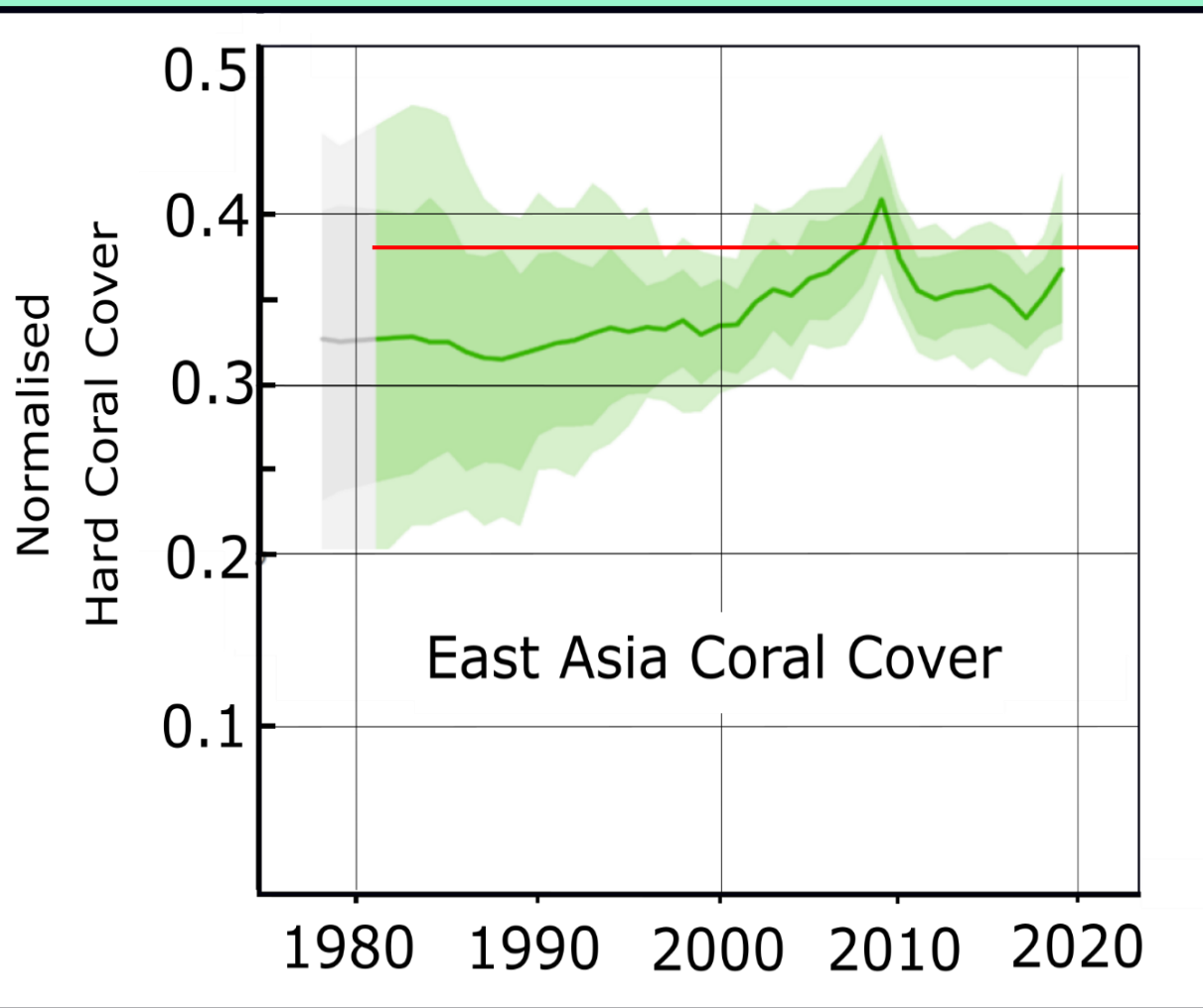
Global Coral Reef Monitoring Network



GCRMN Data

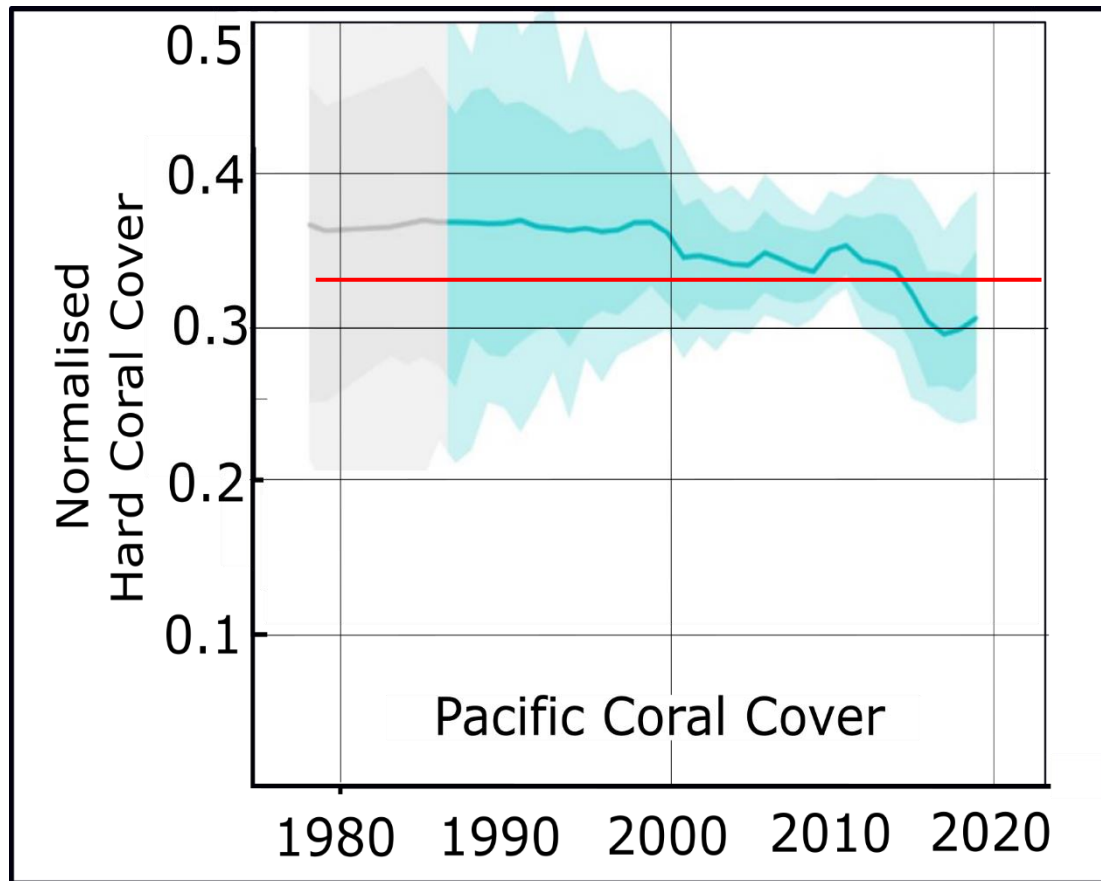
Problems with sampling

- **Changing methods**
- **Not sampling same places each year**
- **Different methods in different regions**
- **little randomisation of sampling locations**
- **Little documentation of how sampling changed**
- **Very little data before 1998**
- **Degree of subjectivity in estimates**

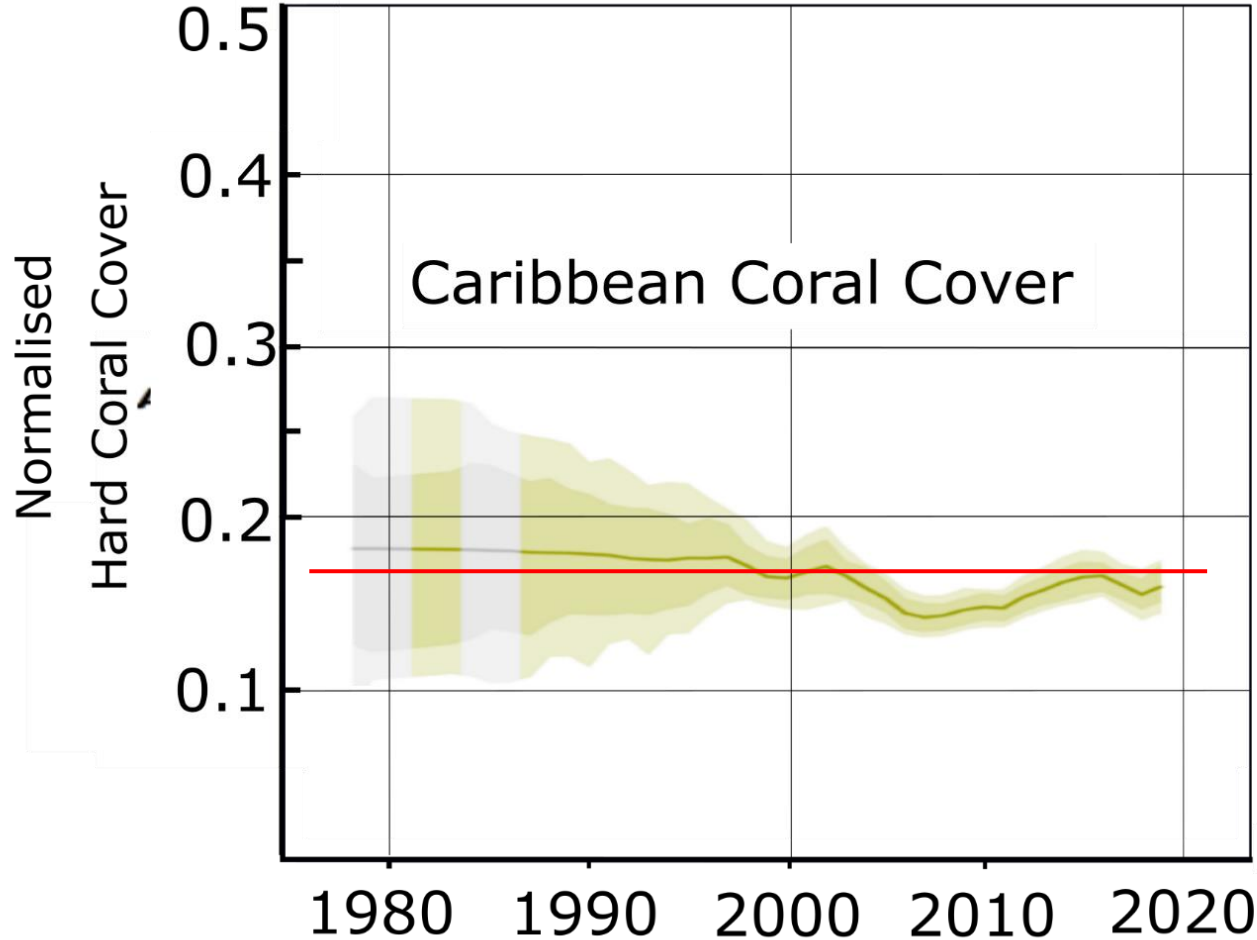


East Asia: 30% of world's coral reefs.

No significant fall in coral cover. Data before 1995 of little value



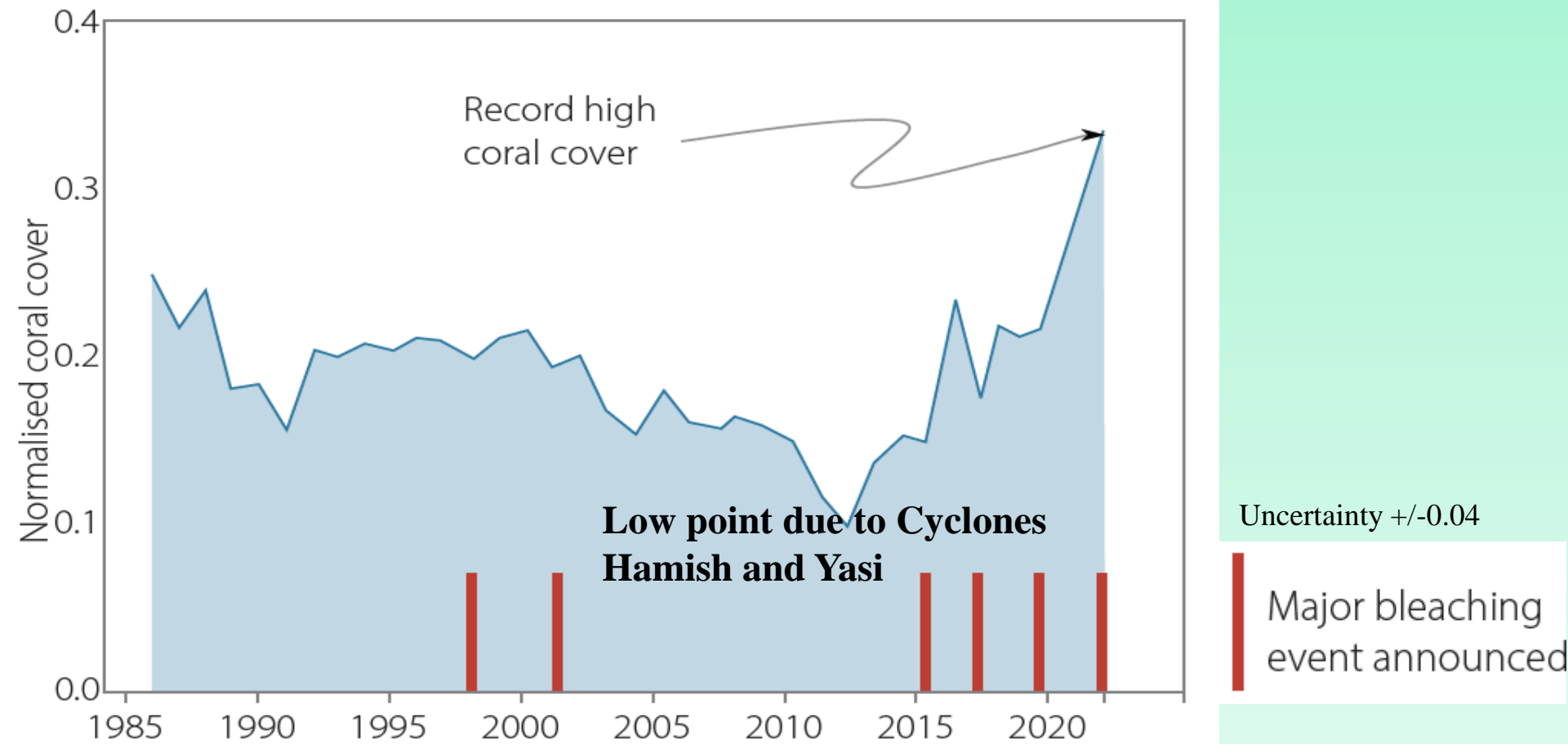
Pacific: 26% of world coral
No statistically significant reduction



Caribbean: 10% of world's coral reefs
No statistically significant fall in coral cover

Great Barrier Reef

15% of world's reefs

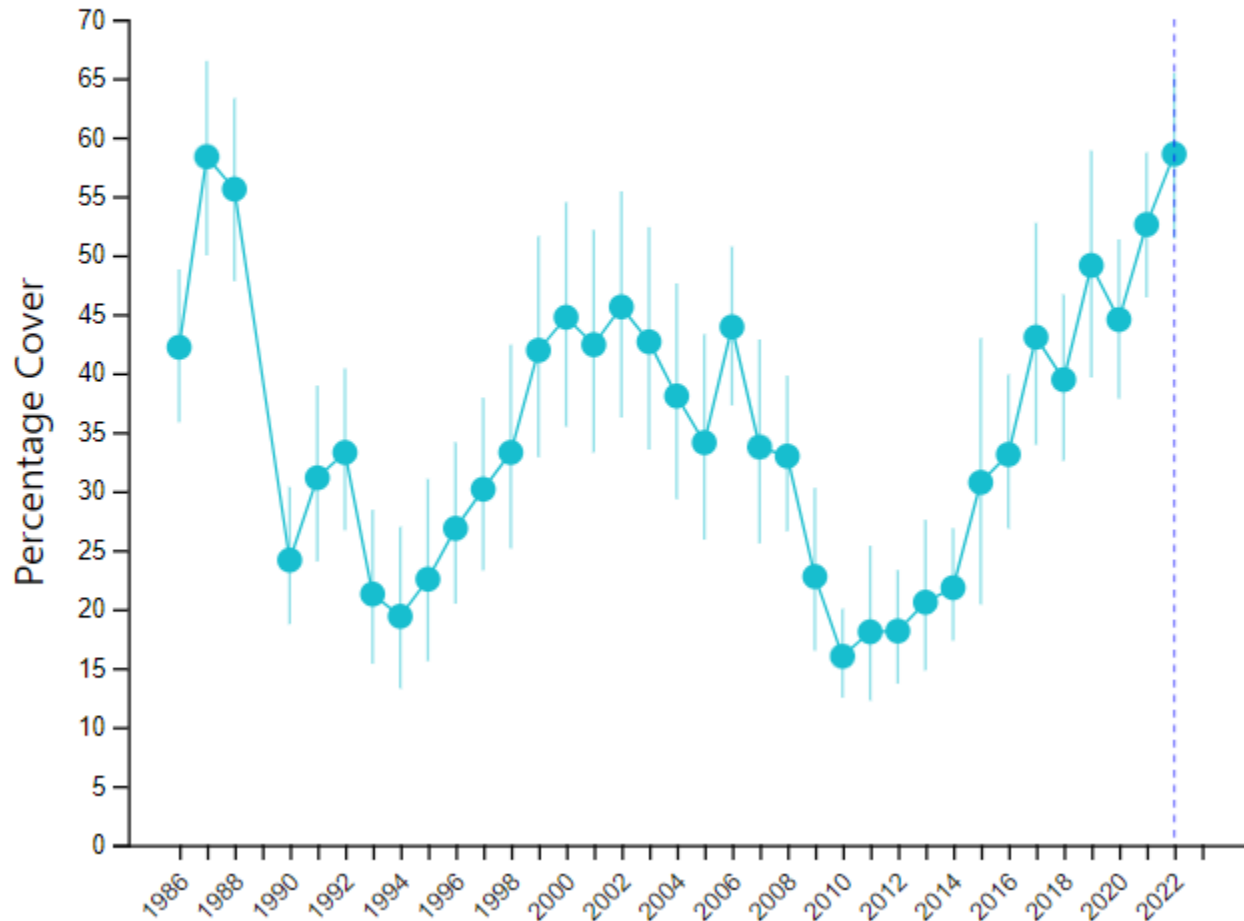


Coral Cover is highly variable

Great for doom-mongers!

Trend in hard coral cover

Capricorn Bunkers Sector



Has this sector lost coral?

- **Highly variable**
- **Most loss is from cyclones and Starfish plagues**
- **Always recovers**

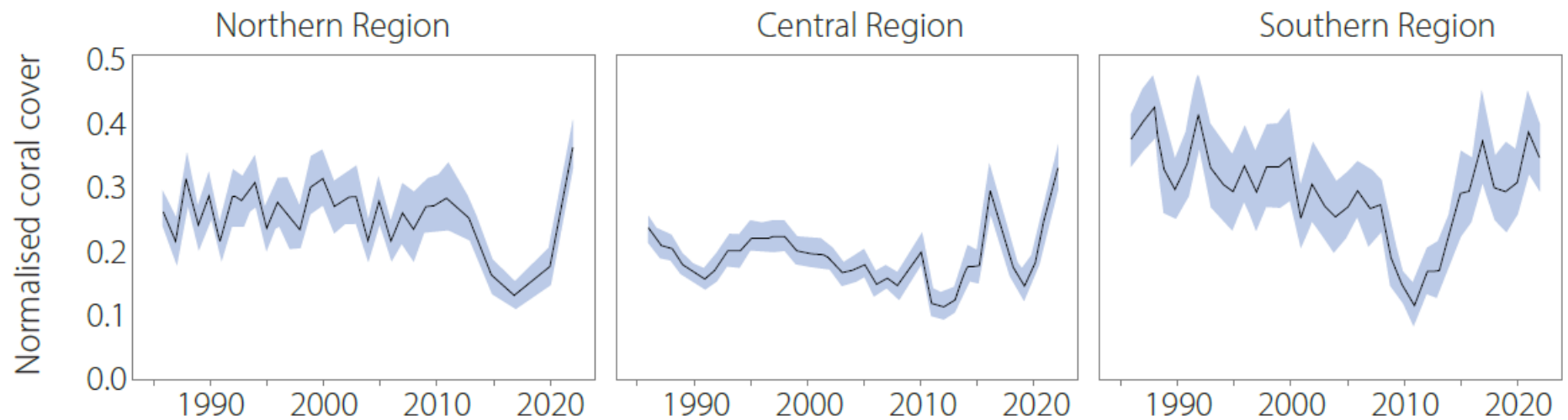
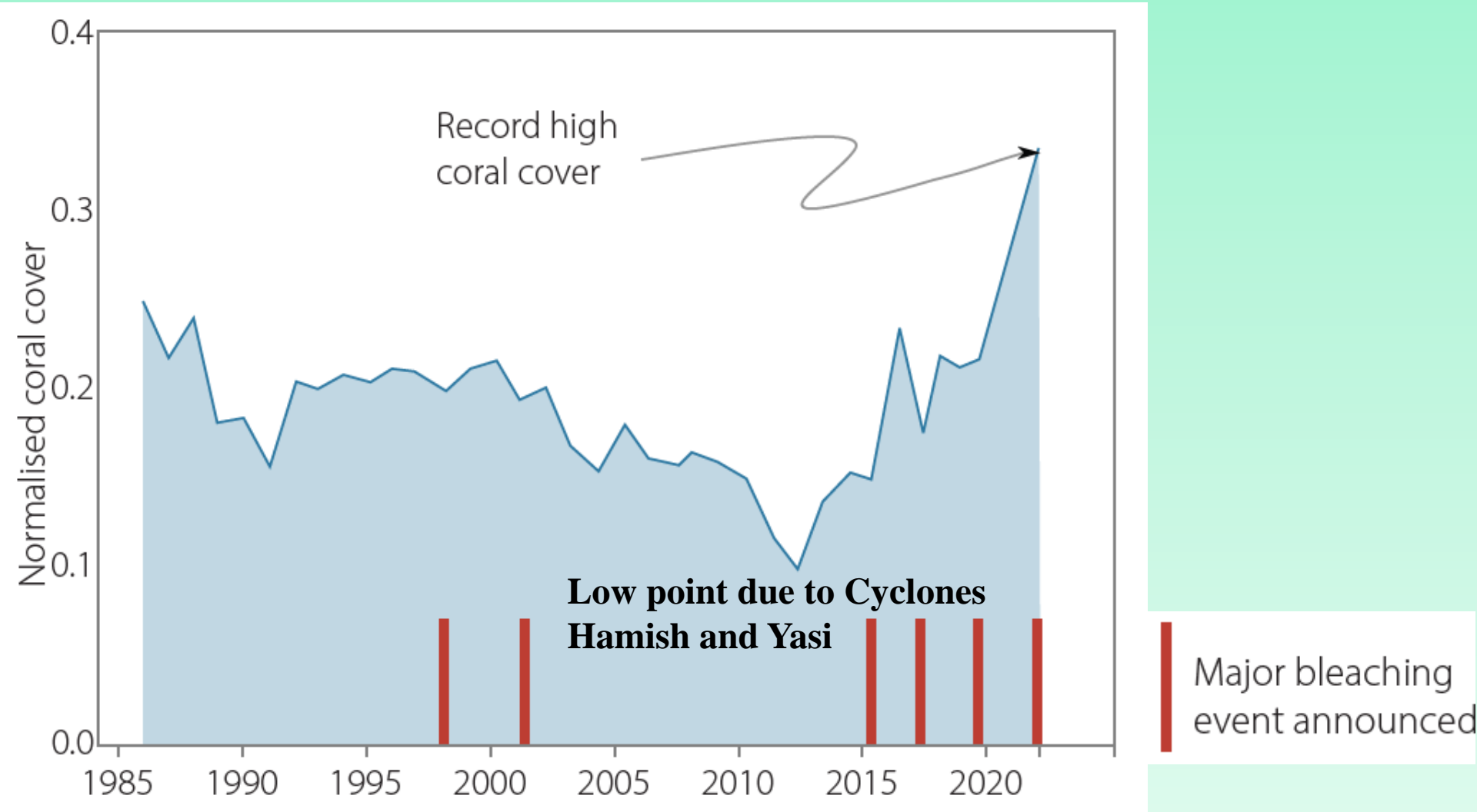


Figure 5: Coral cover for the Great Barrier Reef major regions, 1985–2022

As measured by the AIMS Long Term Monitoring Program. Redrawn from AIMS original. Blue shading represents the uncertainty band.

But record high coral is still BAD



Great Barrier Reef sees record coral cover, but it is highly vulnerable

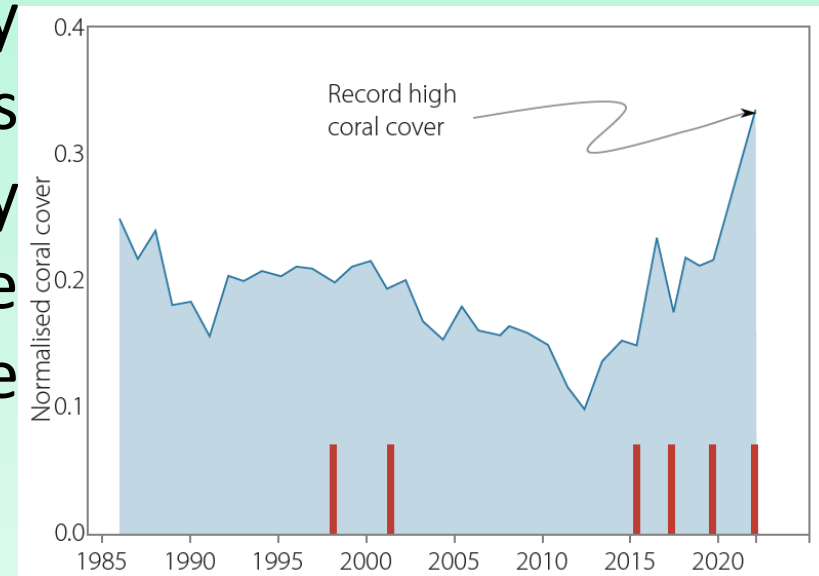
By Tiffanie Turnbull
BBC News, Sydney



Photo by: Leonard Lim Photography

The rapid growth in coral cover appears to have come at the expense of the diversity of coral on the reef, with most of the increases accounted for by fast-growing branching coral called *Acropora*.

Those corals grow quickly after disturbances but are very easily destroyed by storms, heatwaves and crown-of-thorns starfish. By increasing the dominance of those corals, the reef can become more vulnerable. (ABC news 4/8/22)

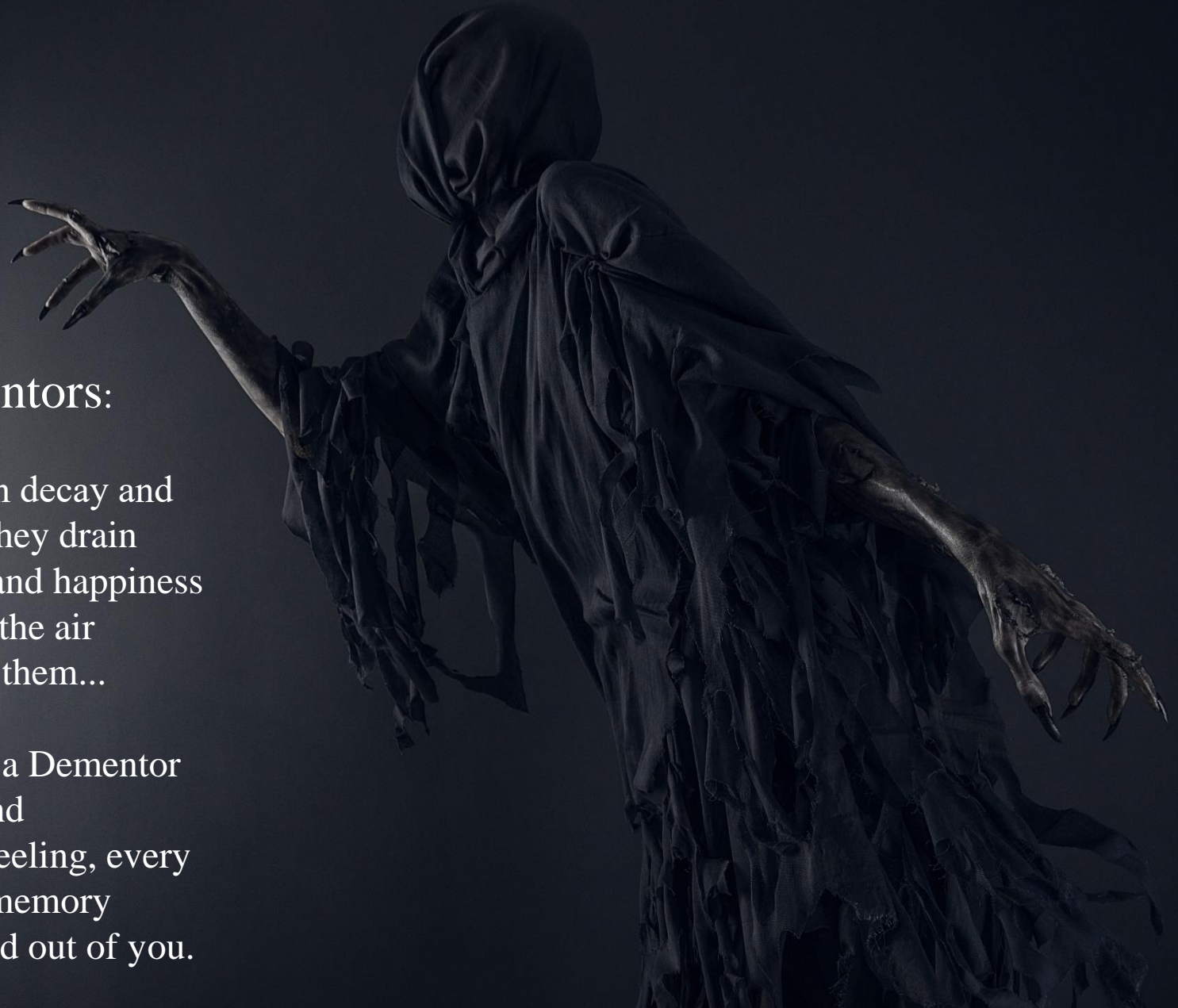




Dementors:

....glories in decay and
despair, they drain
peace, hope, and happiness
out of the air
around them...

get too near a Dementor
and
every good feeling, every
happy memory
will be sucked out of you.



Mass Coral Bleaching

A story made in heaven to
demonstrate the disaster of global
warming.

Spectacular and initially plausible



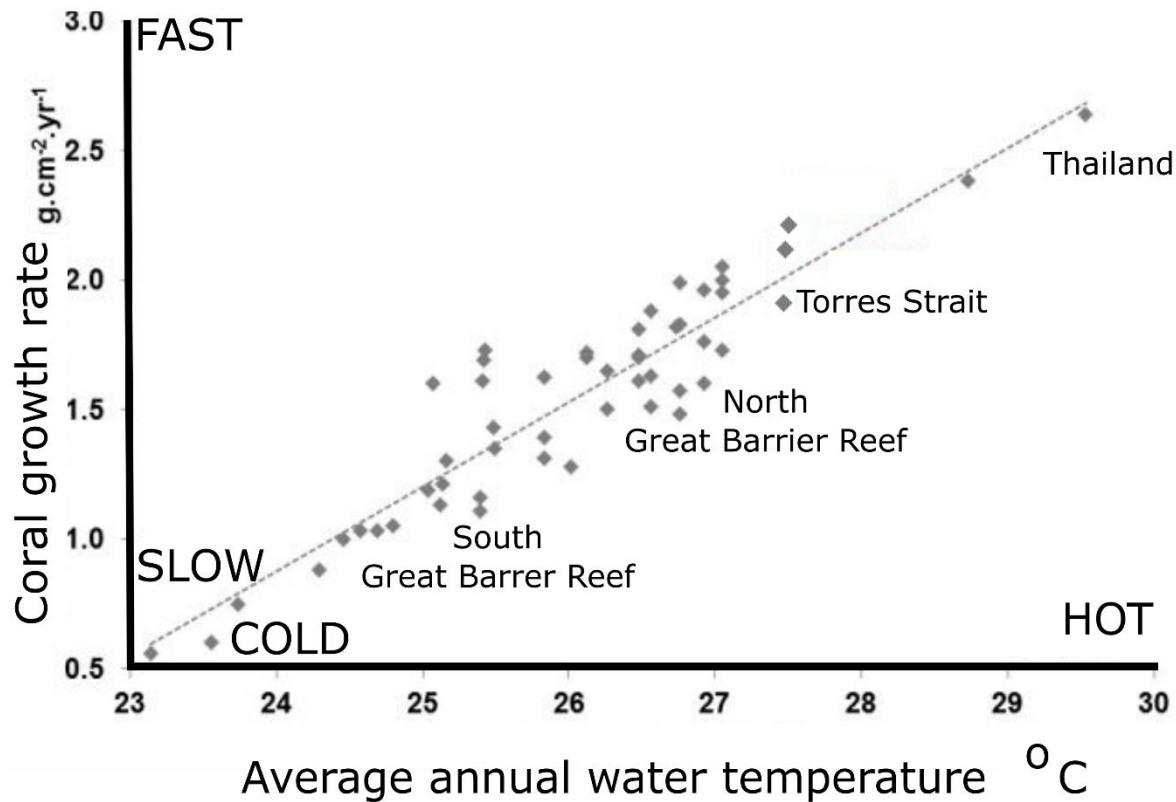
Some Bleaching Facts

- Corals grow faster in warmer climates.
- Most corals on GBR also live in Papua New Guinea and Indonesia where the water is 1 -2°C hotter.
- Bleaching kills very little coral compared to cyclones.
- GBR has record high coral after 4 “devastating” “unprecedented” mass bleaching events in 6 years
- Corals are better able to cope with changing climates than almost any other organism (by shuffling zooxanthellae)

Is bleaching a natural phenomenon
like a bushfire
Spectacular but not unprecedented.
And the forest recovers



Hot water is GOOD for coral reefs

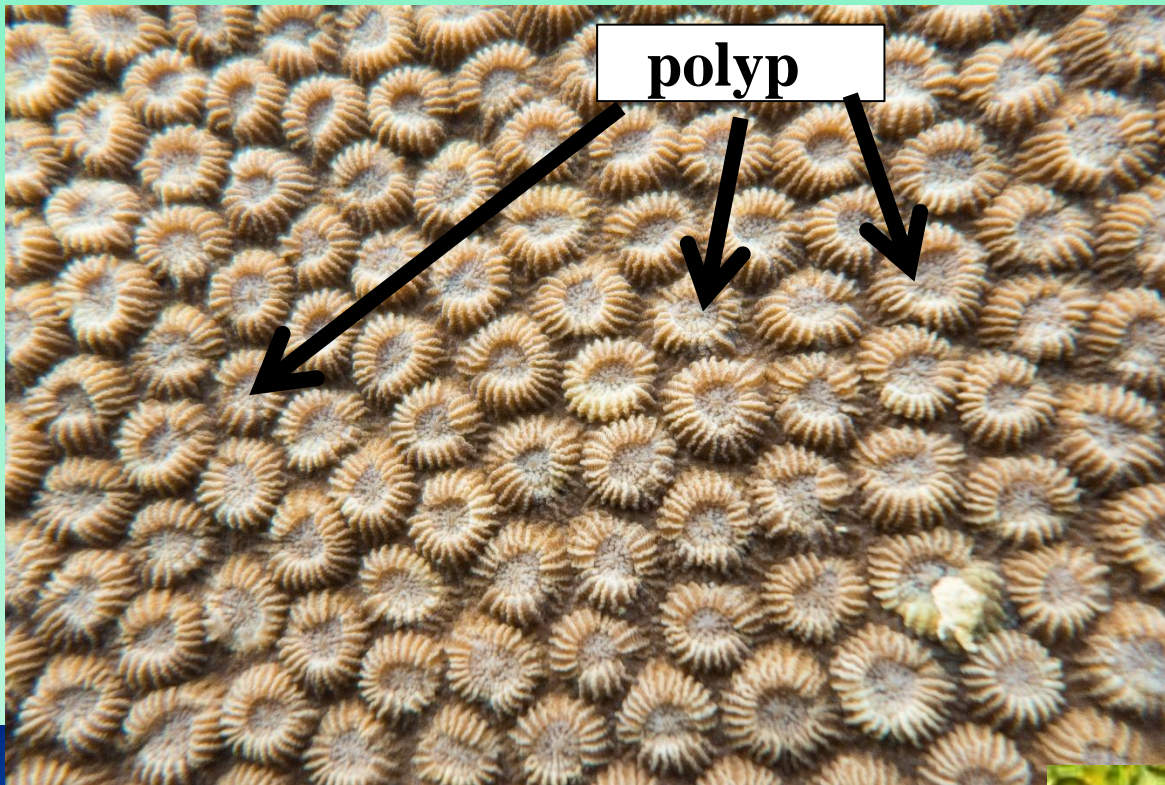


The Coral Triangle

region of most diverse and fast
growing corals on earth

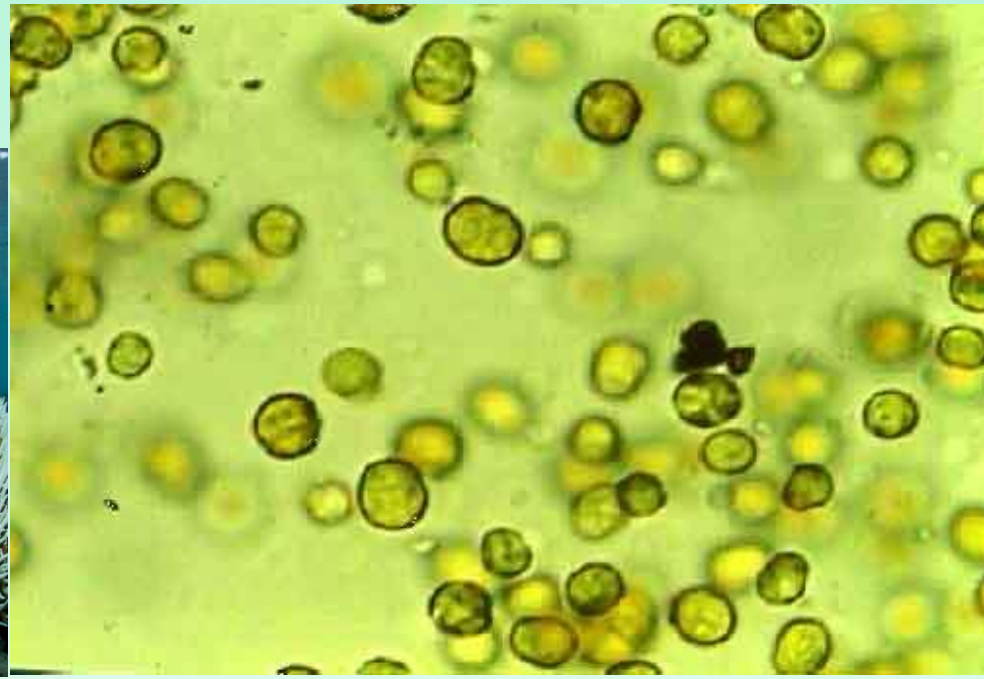
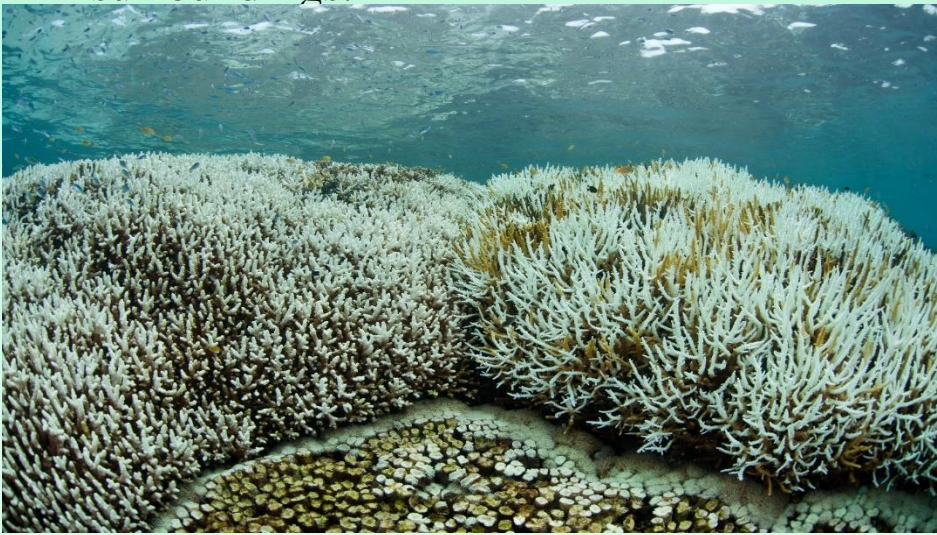


Also known as
Indo-Pacific
warm pool.
Hottest major
water body on
earth.



Corals: A masterpiece of cooperation

- Zooxanthellae live inside polyp
- Zoox leaves or is ejected by the coral when stressed
- Bleaching is not a death sentence it is a strategy for life.
- Perhaps a rough analogy is some trees losing leaves during a drought to save water.
- Corals are born with NO ZOOXs
- They capture them from the water and surroundings.



Corals can adapt to
temperature changes by
shuffling Zoox. It's a
200 million year old game
of roulette.

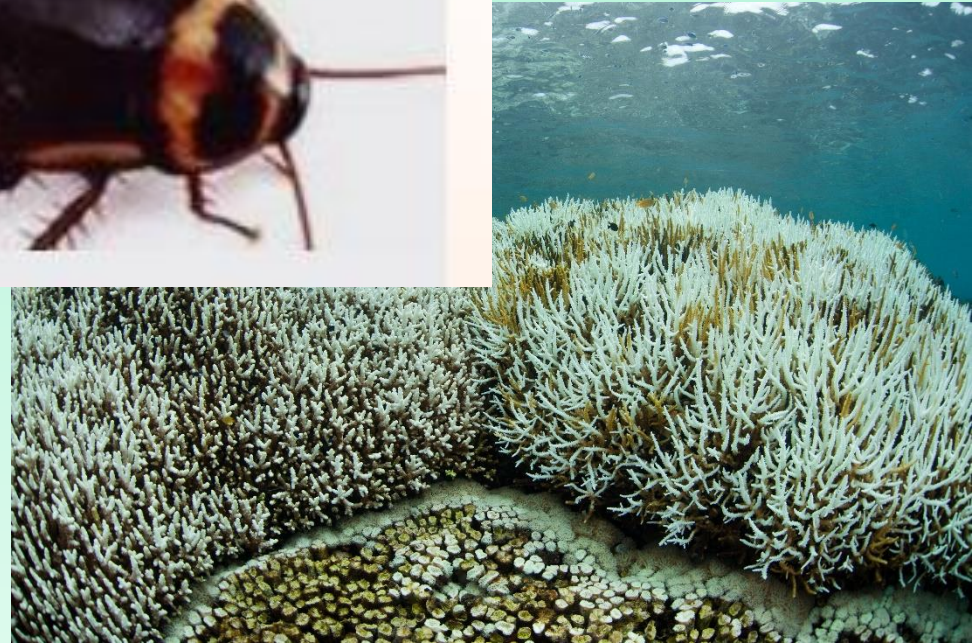
- Different species of Zooxanthellae affect coral growth rates and susceptibility to bleaching.
- Some “low octane” species of zooxs will give resistance to bleaching but the coral will grow slowly.
- High octane zooxs will allow the coral to grow quickly but a hotter-than-average year will cause bleaching and possibly die
- There is no hard threshold temperature. The same coral will bleach at different temperatures with different zooxs.
- After a coral bleaches, it may take on a different species of zooxs which will make it less susceptible in the future.

- Short lived species (e.g. Acropora) are most susceptible to bleaching.
- They are also more susceptible to most other disturbances. Live fast - die young.
- Recover quickly (a couple of decades).



Acropora Corals: The weeds of the reef. Live fast, die young. If bleaching does not kill them, the next cyclone will

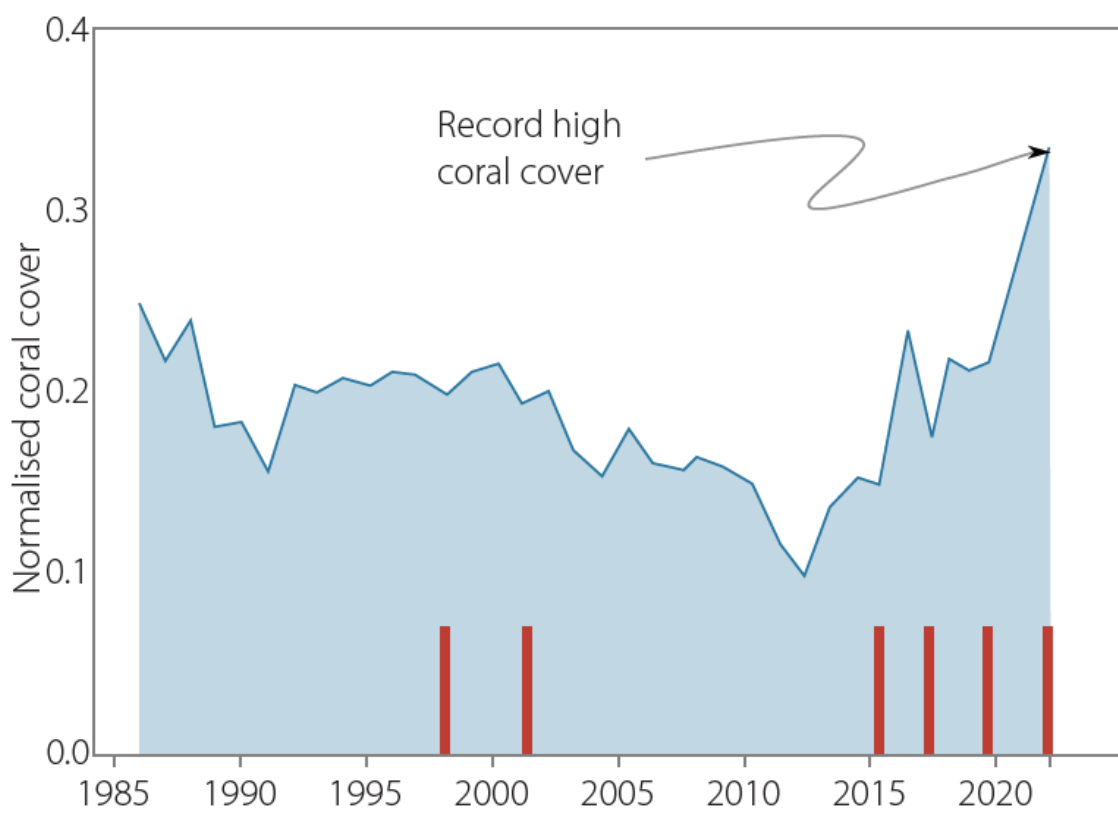
Susceptibility to climate change



**Corals: Cockroach
or Canary?**

People still trust the
science institutions.

We all want to trust
the institutions



**If this is true,
and the reef is fine**

The Washington Post
Democracy Dies in Darkness

**BBC
NEWS**

THE ROYAL SOCIETY




**Australian
Academy of
Science**

**Then these, and
many more
have been
untrustworthy
(horrible thought!)**

Ridd versus James Cook University

Win on principle. Lost on technicality

Peter Ridd's lost appeal 'a win for intellectual freedom'



Constitutional lawyer says Australian case will help frame courts' approach to academic freedom issues



Peter Ridd's Case- a pyrrhic victory for James Cook University

by Chris Merritt | May 23, 2022 | Chris Merritt, Commentary, Freedom of Speech

Ridd versus James Cook University

- **High Court ruled JCU unlawfully censured Ridd for his comments on GBR and science quality assurance.**
- **Court upheld primacy of academic freedom of speech.**
- **But: JCU had a right to fire Ridd because he spoke in public about JCU's unlawful behaviour - broke confidentiality directive. Also HC said Ridd's comments about the university were not protected by academic freedom – not in “area of expertise.”**

Universities

- **Free speech**
- **Almost completely captured**
- **Peer review of funding excludes dissent on climate science**
- **Conservative dissent almost completely crushed**
- **Mono-versities!**
- **Are any salvageable?**
- **Need to mostly start anew**



UNIVERSITY OF
CAMBRIDGE



BOND
UNIVERSITY



JAMES COOK
UNIVERSITY
AUSTRALIA

Conservative (genuinely) governments must fund

- **Scientific reds teams**
 - **Scientific dissent**
 - **Alternative new universities**

**Let younger dissenters come
out from under the rock.
Duty for old academics to
dissent**

no matter the risk



Sheltered Guy Emerging from Under a Rock
© 1996 by Ron Leishman