The Great Barrier Reef is Great?

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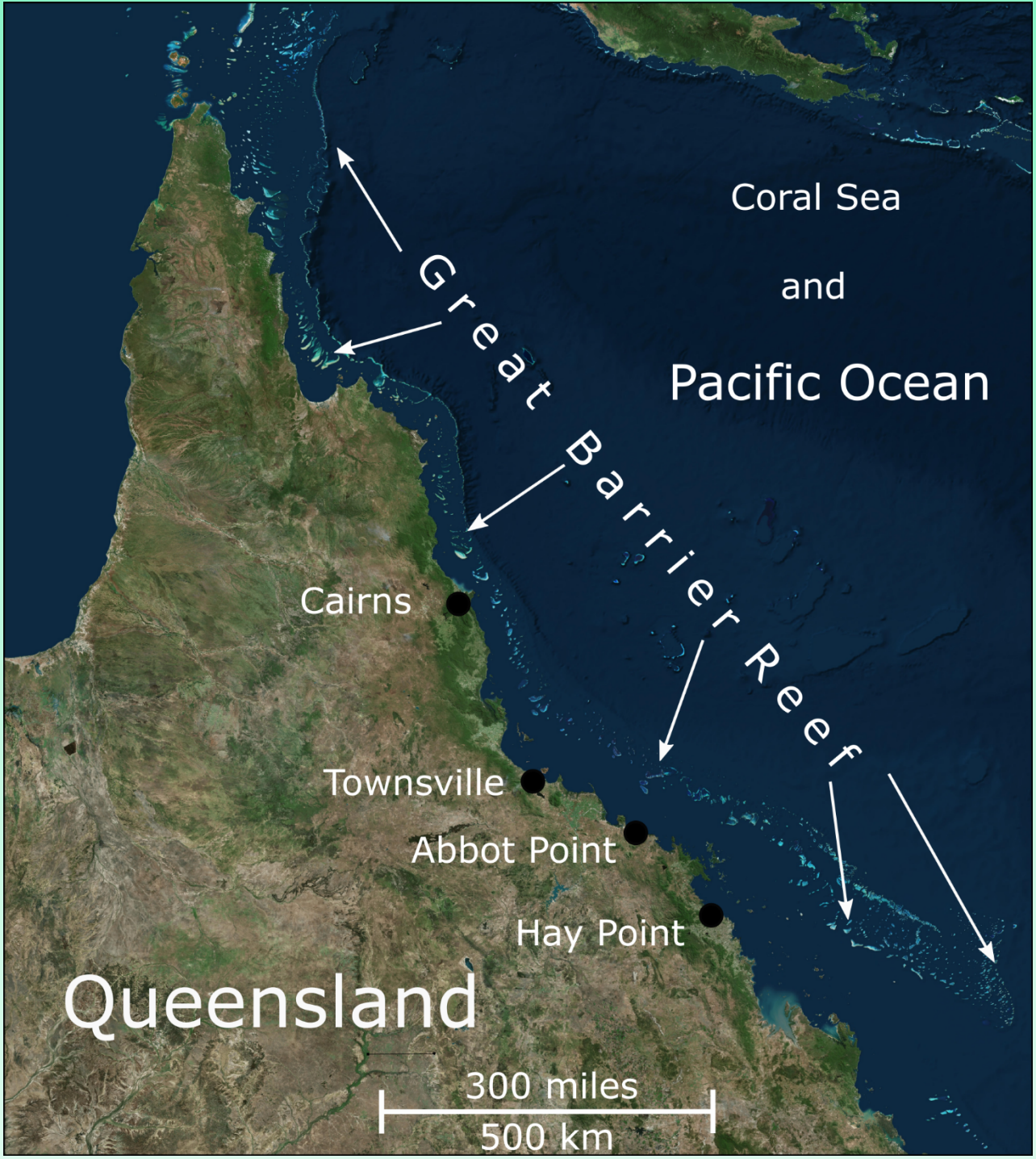
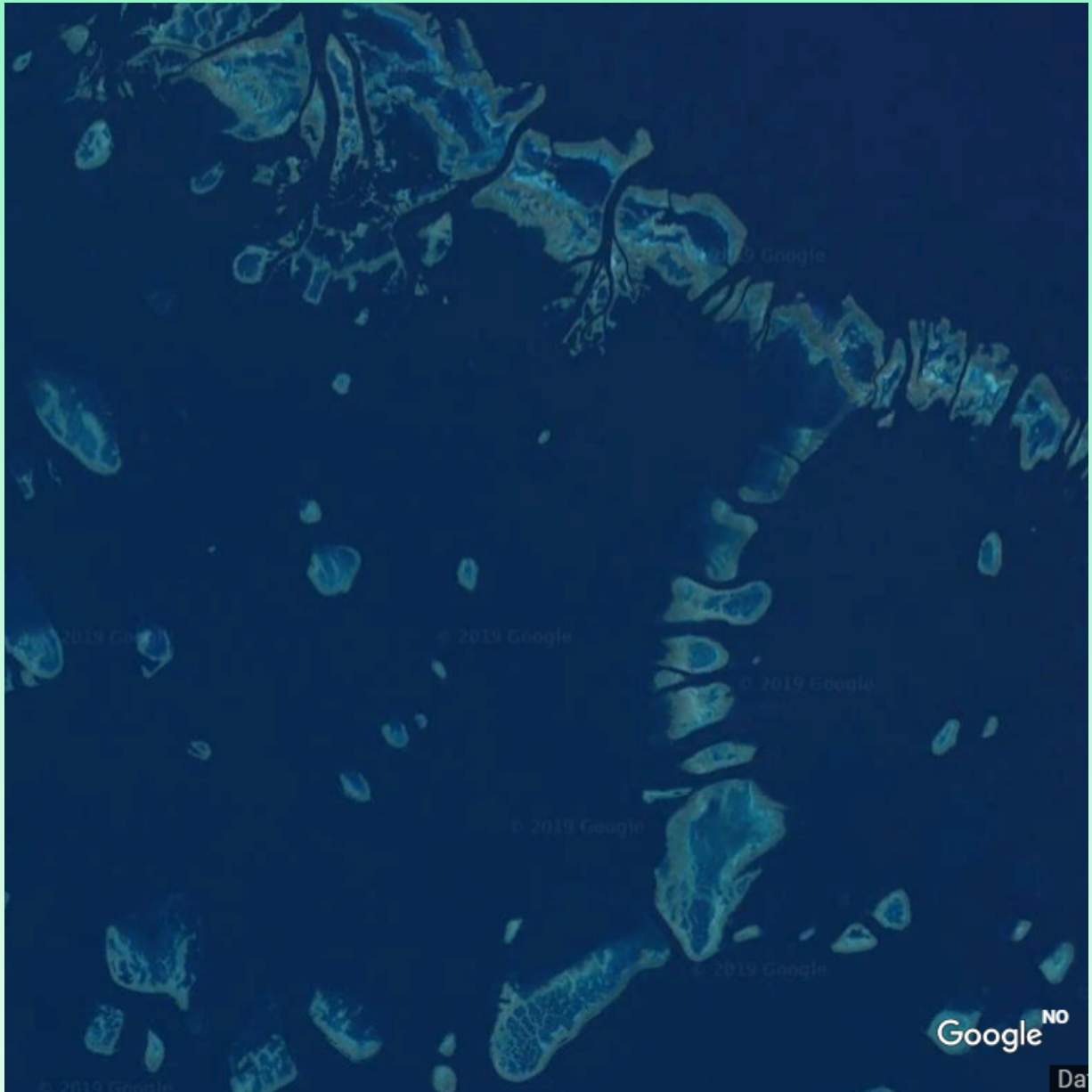
Summary of the GBR

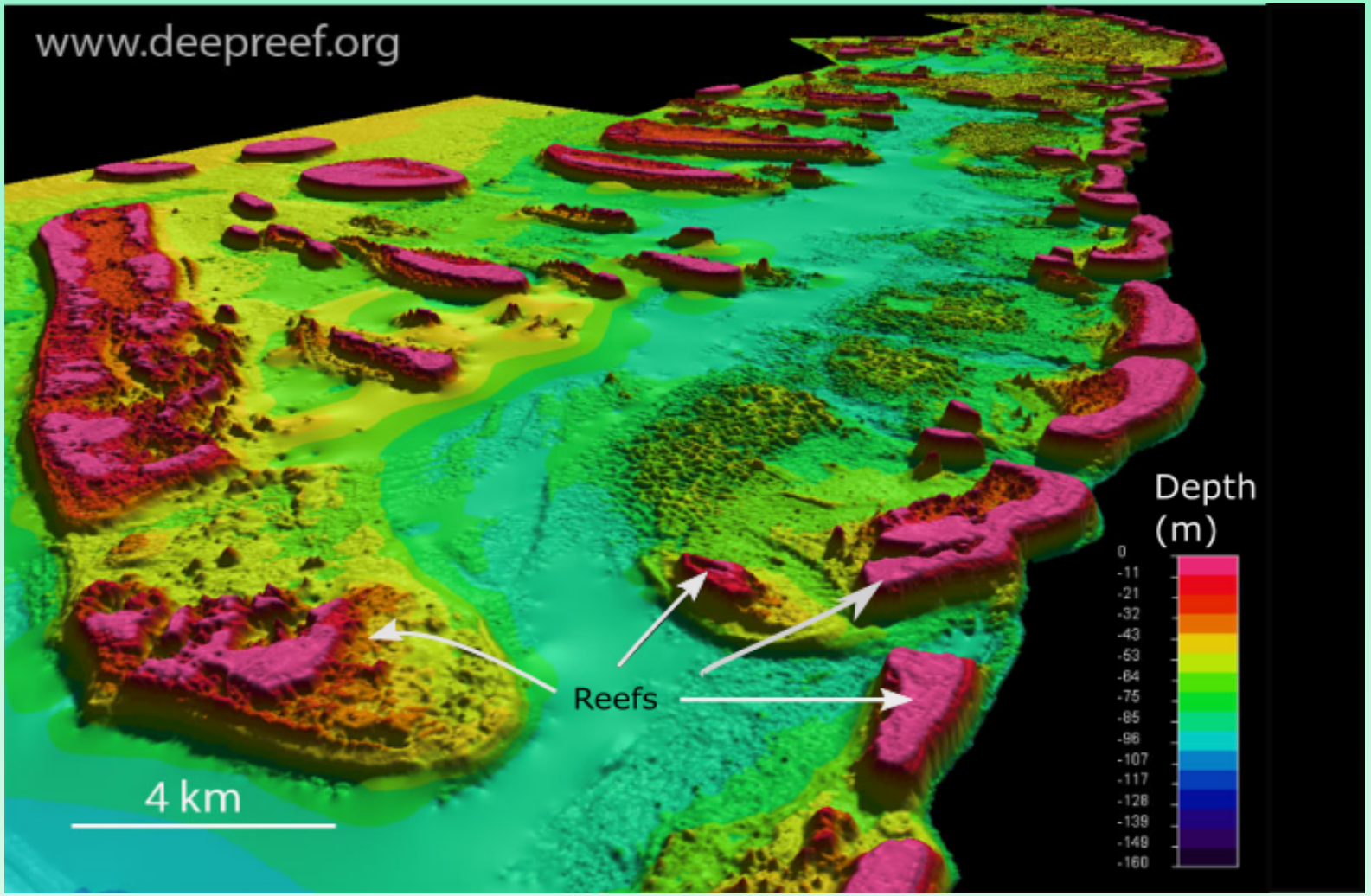
- Not a single reef, of 3000 reefs, has been lost
- Amount of coral on the reefs is at record highs
- Coral Growth rates have not changed for centuries
- Corals grow much faster in warmer water
- Reefs are highly variable. Destruction and regrowth.
- Most coral death is due to cyclones and starfish, not bleaching.
- Coral loss ALWAYS followed by strong recover – like a bushfire
- Pollution impacts are negligible.
- GBR rapidly “flushed” with the Pacific Ocean
- Pesticides are effectively not present
- Farm sediment (mud) does not reach the GBR
- Farm nutrients (fertilizer) are trivial

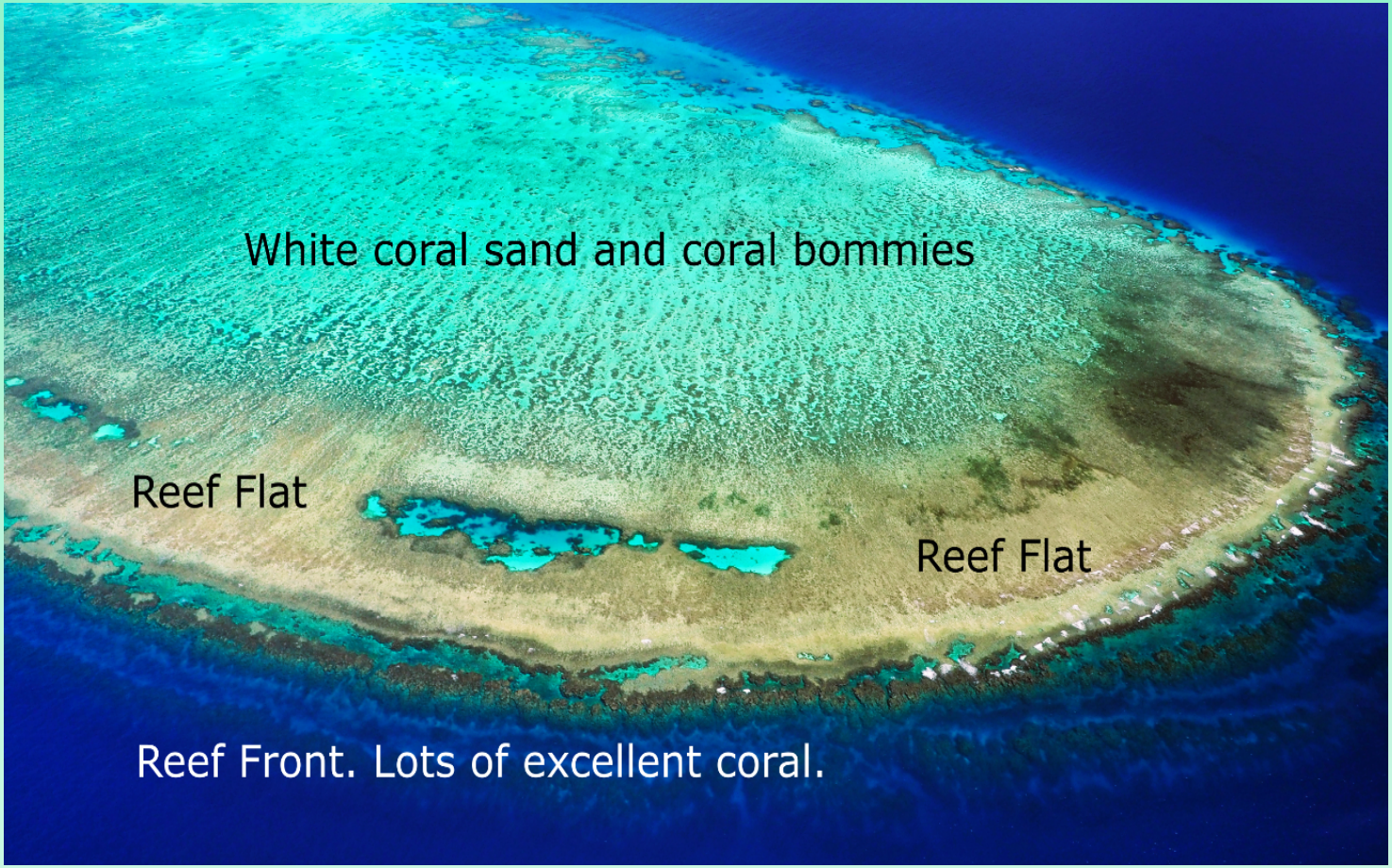


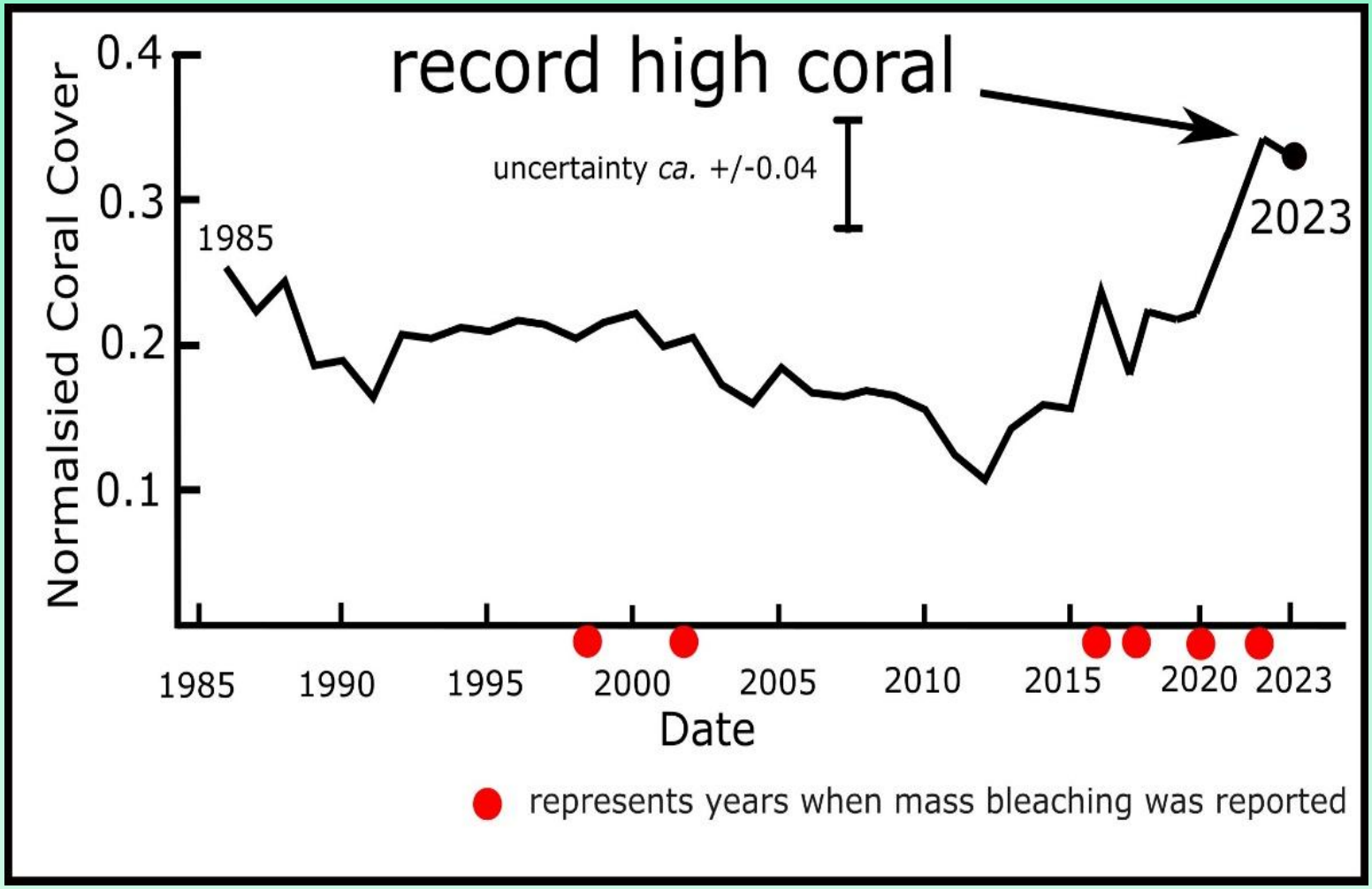
The Reef is a long way from the coast

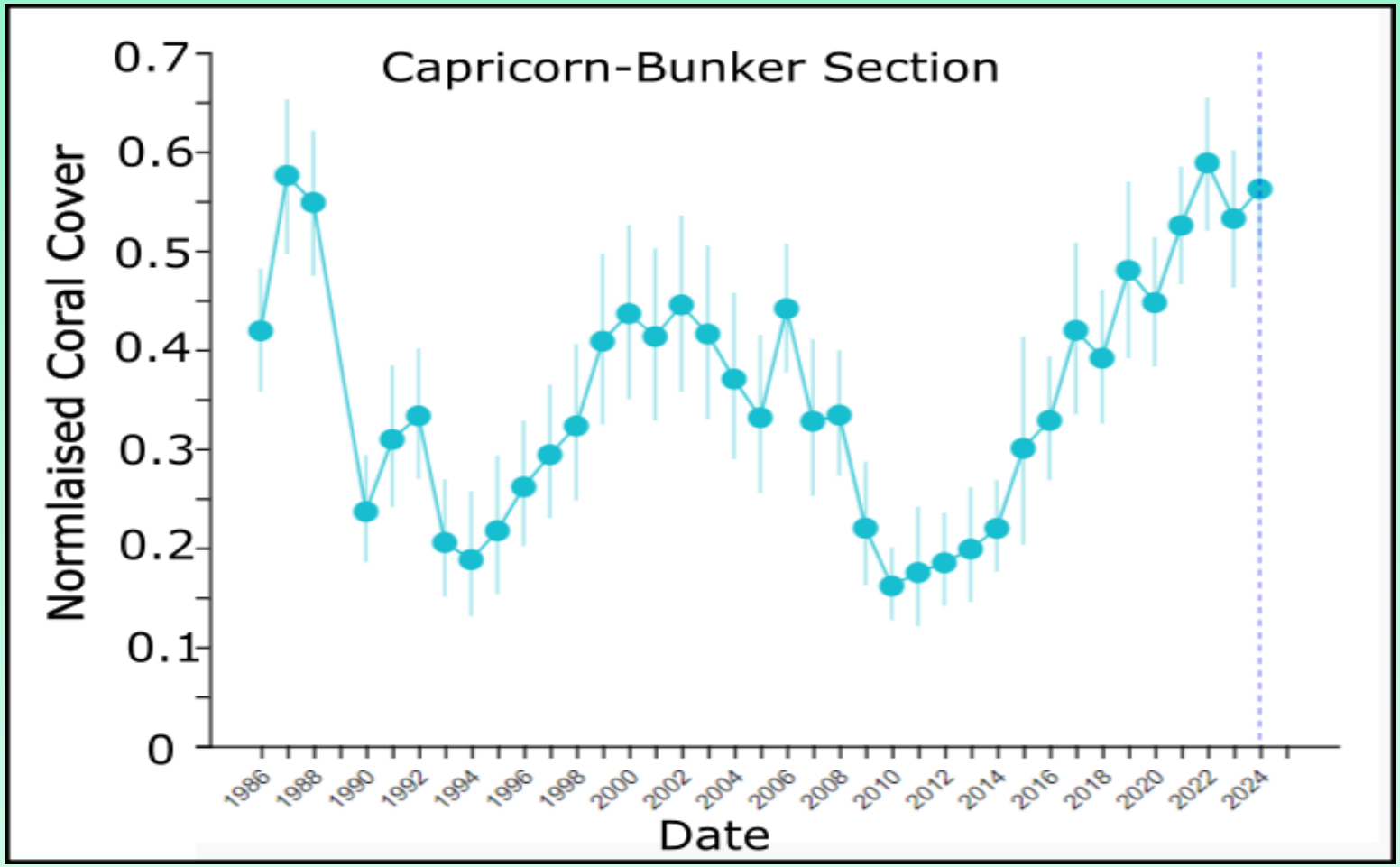
And made of 3000 individual reefs each a few kilometres in size

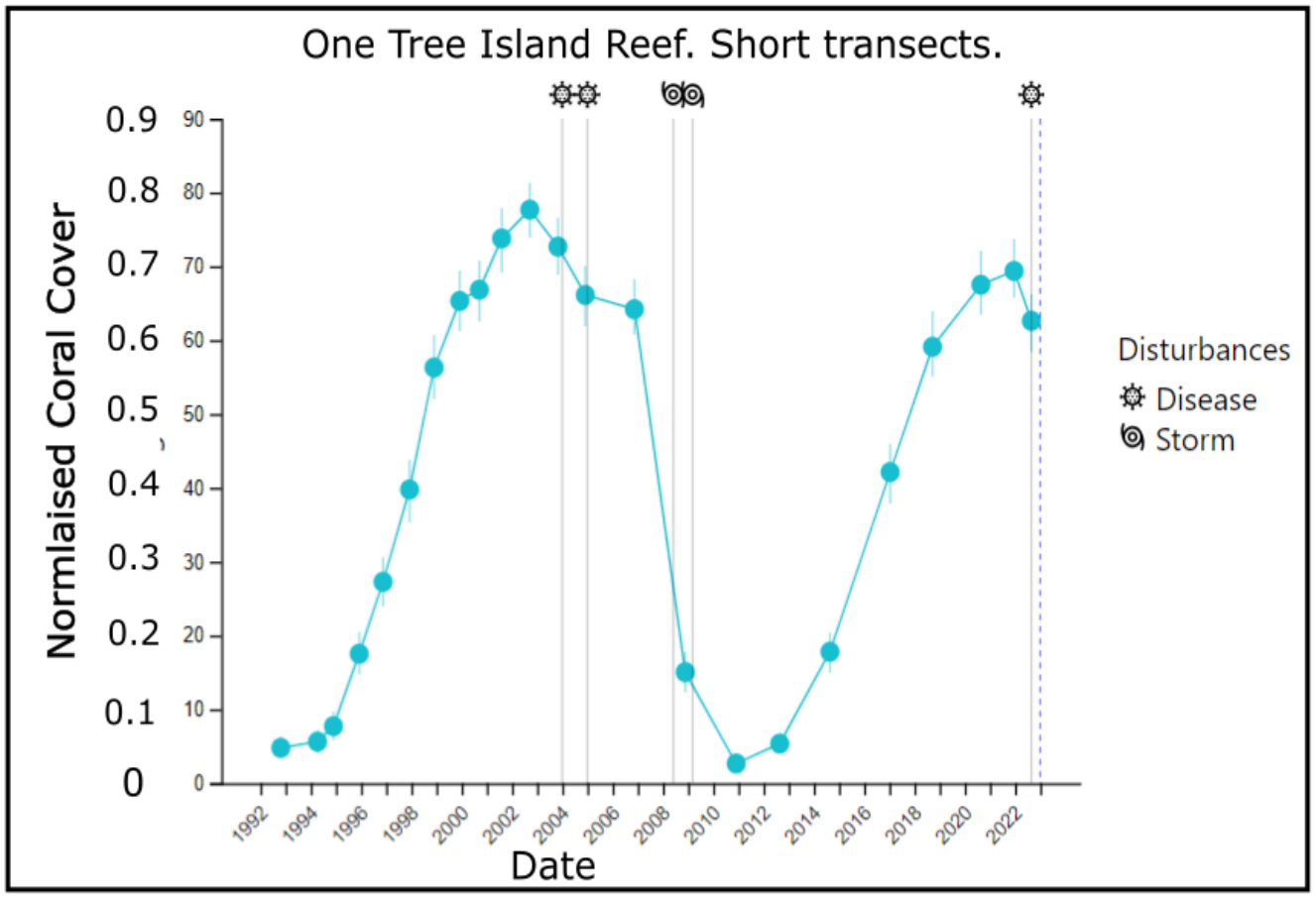



www.deepreef.org
Depth
(m)
0
-11
-21
-32
-43
-53
-64
-75
-85
-96
-107
-117
-128
-139
-149
-160
Reefs
4 km

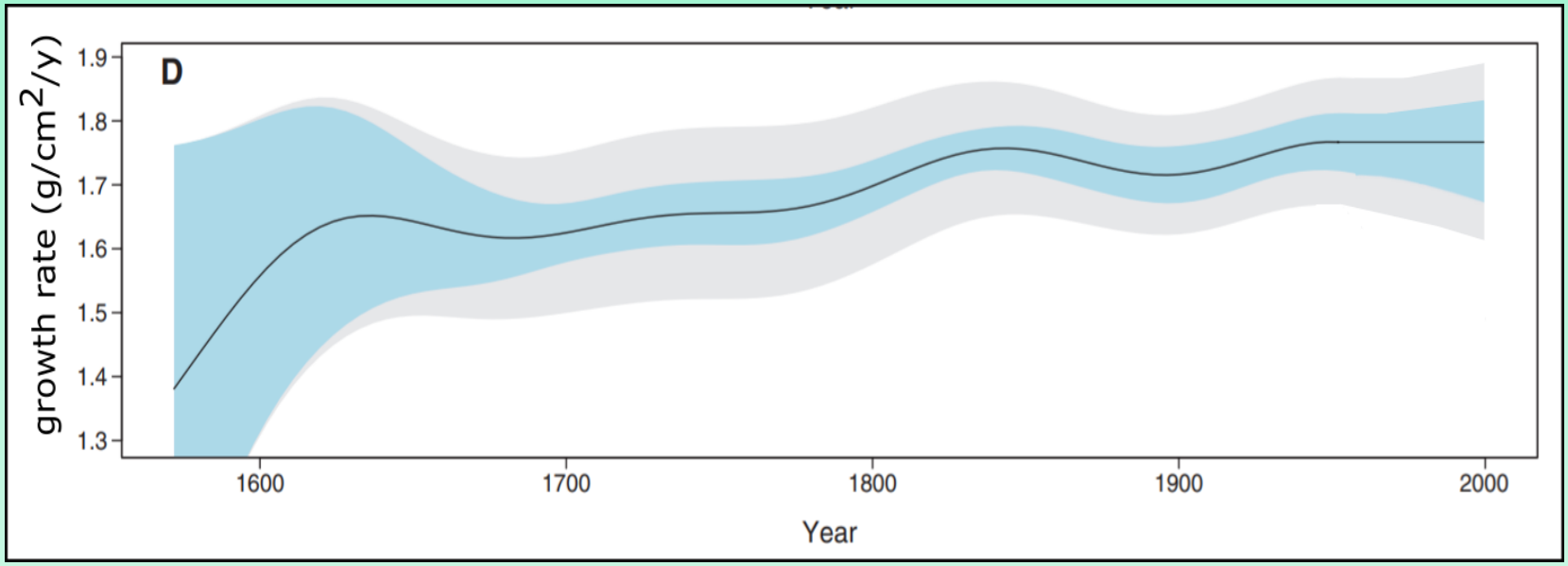

White coral sand and coral bommies
Reef Flat
Reef Flat
Reef Front. Lots of excellent coral.


record high coral
uncertainty ca. +/-0.04
1985
2023
Normalsied Coral Cover
0.4
0.3
0.2
0.1
1985
1990
1995
2000
2005
2010
2015
2020
2023
Date
represents years when mass bleaching was reported

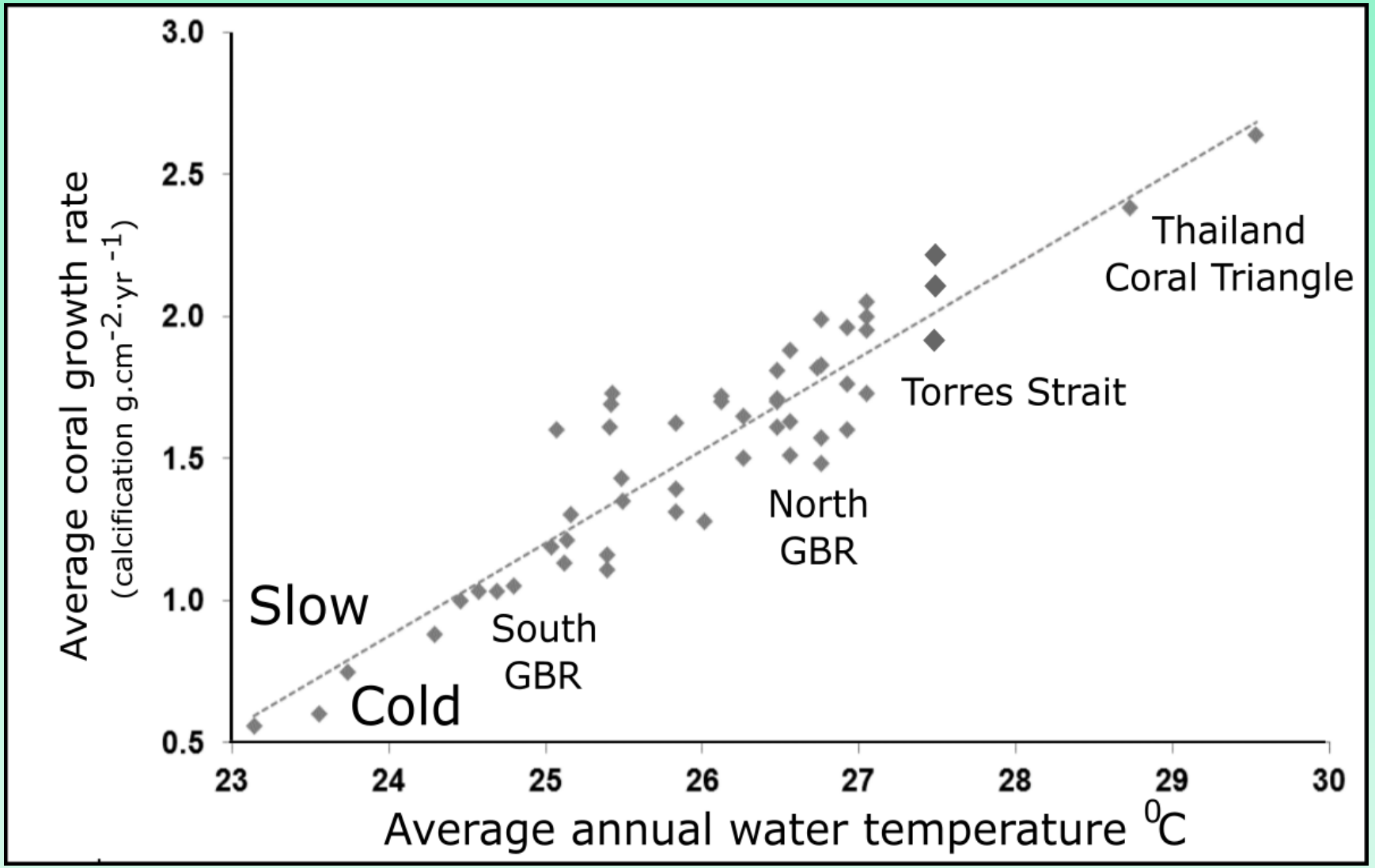

Capricorn-Bunker Section
Normlaised Coral Cover
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Date


One Tree Island Reef. Short transects.
Normlaised Coral Cover
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
90
80
70
60
50
40
30
20
10
0
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
Date
Disturbances
Disease
Storm

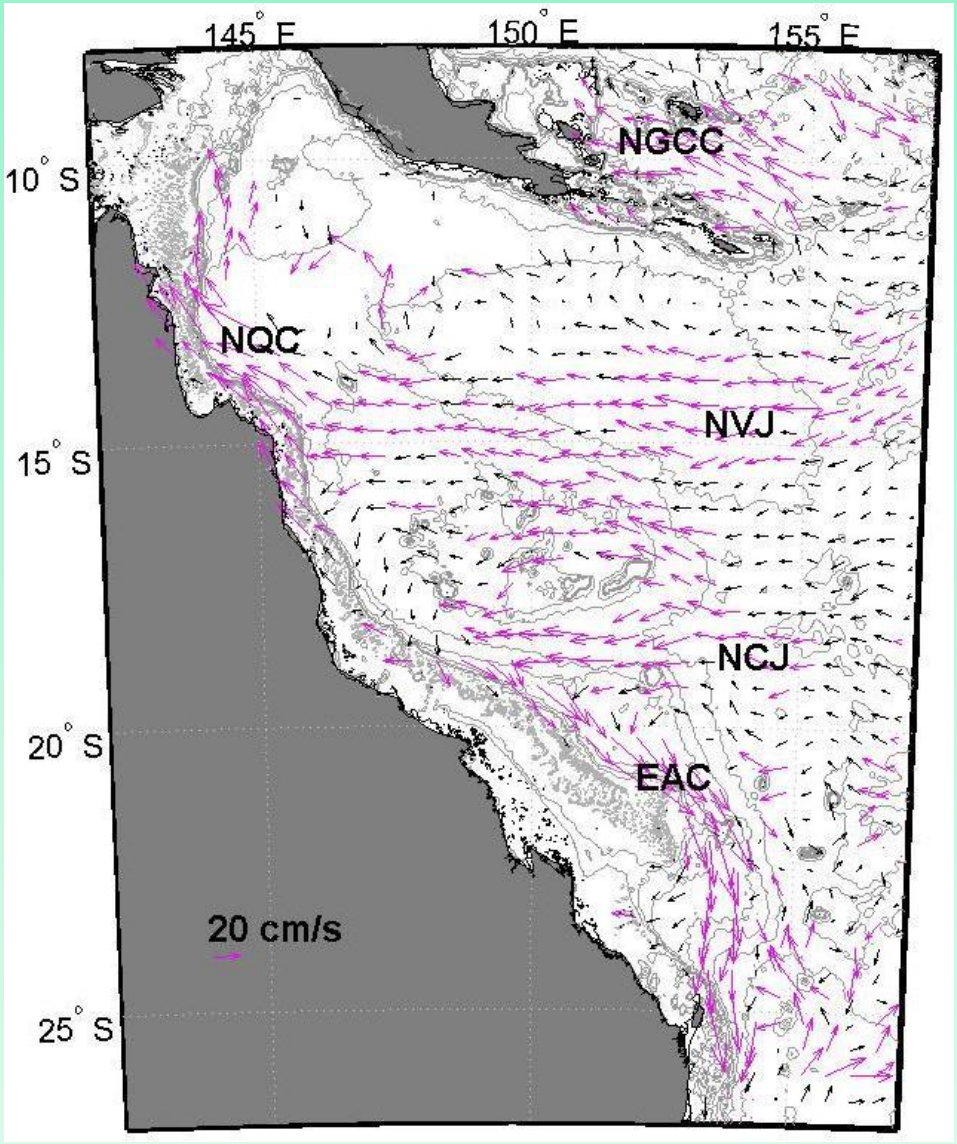
Coral Growth rates have not slowed



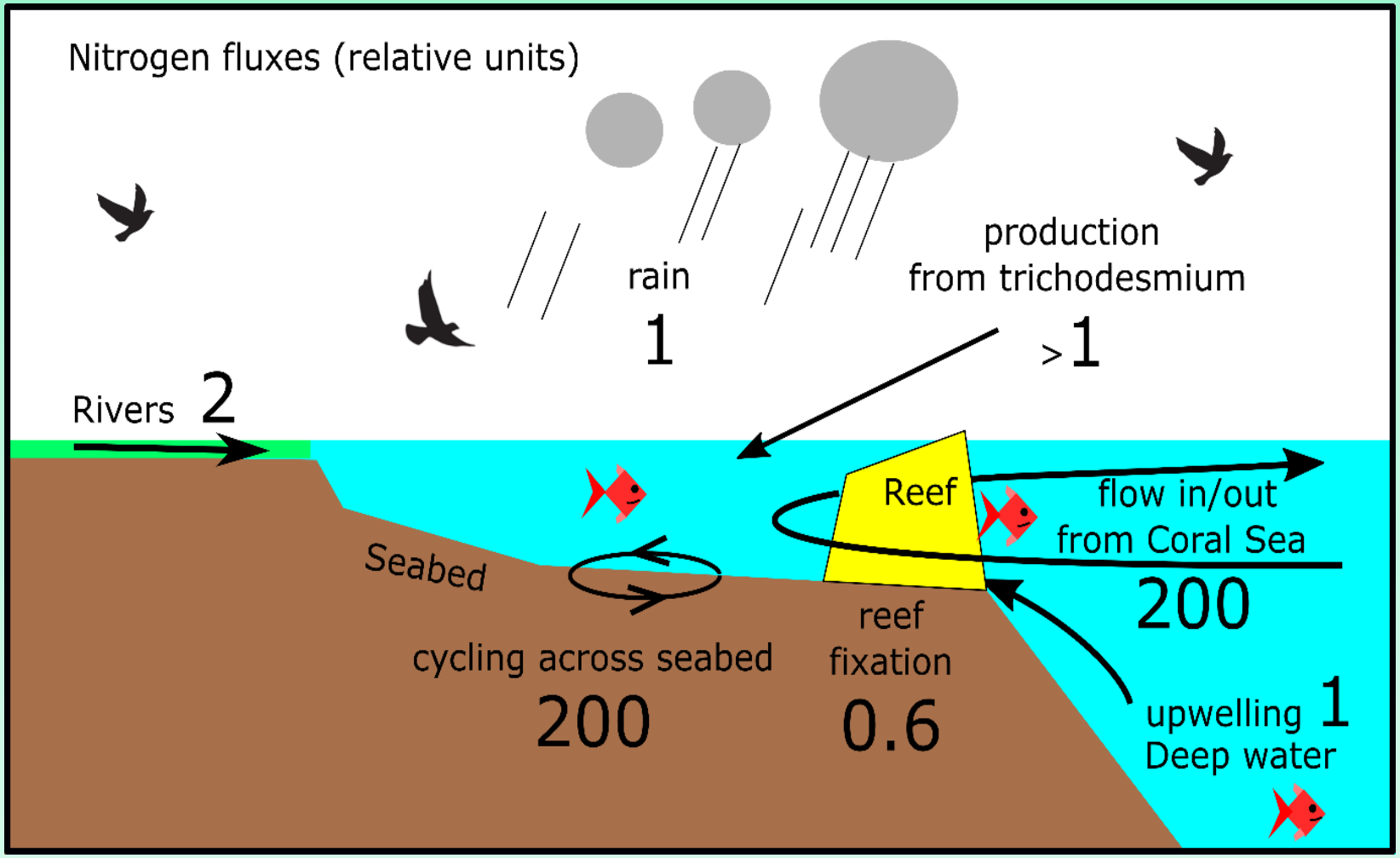
Corals like it HOT



GBR is well flushed by ocean current so relatively unsusceptible to pollution



Farmers contribute a drop in a bucket to nutrients



Where is all the mud that is killing the GBR?