

**Response from Ove Hoegh-Guldberg, Professor of Marine Studies, University of Queensland:**

**1. Is it possible that the threat to the Reef has been overstated?**

No. probably understated. There is much scientific evidence across hundreds of peer-reviewed scientific literature plus professional reviews by scientific organisations like Academies of Science, etc., that the majority by many conclude that rising sea temperatures from fossil fuel-driven climate change are to blame.

**2. If the threat to the Reef from bleaching and climate change is so grave, why is the coral cover at record or near-record levels?**

Corals create the reef structure into which hundreds of thousands of species live. These species provide food, protect coastlines and support livelihoods. They are also very susceptible to small changes in temperature during the summer months of the year.

We know this because we have measured responses in the lab (heating corals makes them bleach), and can predict severe coral bleaching and mortality based on the satellite temperature crossing the thermal thresholds of these vital communities.

Mass coral bleaching and mortality have been growing in frequency and intensity. More and more, we have lost larger and larger amounts of coral from places like the GBR but coral in general. Many scientists say (almost without exception) that we are starting to experience mass coral bleaching and mortality annually as sea temperatures keeps moving upward.

This threatens the biological diversity of the GBR and puts at risk Reef tourism and fishing industries, which bring in 5 to \$6 billion each year.

**3. Do any reef scientists share Peter Ridd's opinion that the Reef is NOT currently in danger or that the threat has been exaggerated?**

Very few ... In past interviews, Peter has blamed the scientific communities here and overseas, saying that he has been shut out from publishing

Peter Ridd's conclusion that the Great Barrier Reef is not currently in danger is not based on evidence. Show me a coral reef (which normally takes 15-20 years to recover) that can grow back to its full glory in 12 months (pure folly!). If you can, I will eat my hat.

#### **4. What is the public to make of this disagreement?**

Science is central to the evidence and conclusions concerning the final stress that coral is now facing and will face.

As has been said many times, one is entitled to their opinion, not to their science.

The blatant disregard of science is very dangerous in our current world.

Not listening to science puts many at risk unnecessarily.

Hopefully, we will have time to rectify this growing planetary tragedy.