

Reef whistleblower censured by James Cook University

GRAHAM LLOYD THE AUSTRALIAN 12:00AM JUNE 11, 2016

When marine scientist Peter Ridd suspected something was wrong with photographs being used to highlight the rapid decline of the Great Barrier Reef, he did what good scientists are supposed to do: he sent a team to check the facts.

After attempting to blow the whistle on what he found — healthy corals — Professor Ridd was censured by James Cook University and threatened with the sack. After a formal investigation, Professor Ridd — a renowned campaigner for quality assurance over coral research from JCU's Marine Geophysics Laboratory — was found guilty of “failing to act in a collegial way and in the academic spirit of the institution”.

His crime was to encourage questioning of two of the nation's leading reef institutions, the Centre of Excellence for Coral Studies and the Great Barrier Reef Marine Park Authority, on whether they knew that photographs they had published and claimed to show long-term collapse of reef health could be misleading and wrong.

“These photographs are a big deal as they are plastered right across the internet and used very widely to claim damage,” Professor Ridd told *The Weekend Australian*.

The photographs were taken near Stone Island off Bowen. A photograph taken in the late 19th century shows healthy coral. An accompanying picture supposedly of the same reef in 1994 is devoid of coral. When the before-and-after shots were used by GBRMPA in its 2014 report, the authority said: “Historical photographs of inshore coral reefs have been especially powerful in illustrating changes over time, and that the change illustrated is typical of many inshore reefs.”

Professor Ridd said it was only possible to guess within a kilometre or two where the original photograph was taken and it would not be unusual to find great coral in one spot and nothing a kilometre away, as his researchers had done. Nor was it possible to say what had killed the coral in the 1994 picture.

“In fact, there are literally hundreds of square kilometres of dead reef-flat on the Great Barrier Reef which was killed due to the slow sea-level fall of about a meter that has occurred over the last 5000 years,” he said. “My point is not that they have probably got this completely wrong but rather what are the quality assurance measures they take to try to ensure they are not telling a misleading story?”

A GBRMPA spokesman said last night “the historical photos serve to demonstrate the vulnerability of nearshore coral reefs, rather than a specific cause for their decline.

“Ongoing monitoring shows coral growth in some locations, however this doesn't detract from the bigger picture, which shows shallow inshore areas of the Great Barrier Reef south of Port Douglas have clearly degraded over a period of decades.” Centre of Excellence for Coral Studies chairman Terry Hughes did not respond to questions from *The Weekend Australian*.

Professor Ridd was disciplined for breaching principle 1 of JCU's code of conduct by “not displaying responsibility in respecting the reputations of other colleagues”. He has been told that if he does it again he may be found guilty of serious misconduct.

A JCU spokesman said it was university policy not to comment on individual staff, but that the university's marine science was subject to “the same quality assurance processes that govern the conduct of, and delivery of, science internationally”.

This is the crux of the issue for Professor Ridd: “I feel as though I am the whistleblower.”

His potential downfall is the result of a long campaign for better quality assurance standards for ocean and reef research, which has come under fire globally for exaggerating bad news and ignoring the good. Reef politics is a hot topic in the wake of widescale bleaching of corals on the Great Barrier Reef as part of what US agencies have called the world's third mass-bleaching event.





James Cook University's Professor Peter Ridd on Townsville's Strand. Picture: Cameron Laird

About a quarter of the Great Barrier Reef has died and could take years to rebuild. The damage is concentrated in the northern section off Cape York. The scientific response to the bleaching has exposed a rift between GBRMPA and the JCU's Coral Bleaching Taskforce led by Professor Hughes over how bleaching data should be treated and presented to the public. Conservation groups have run hard on the issue, with graphic images of dying corals. All sides of politics have responded with increased funding to reduce sediment flow and to combat crown of thorns starfish.

University of Western Australia marine biologist Carlos Duarte argued in *BioScience* last year that bias contributed to "perpetuating the perception of ocean calamities in the absence of robust evidence".

A paper published this year claimed scientific journals had exaggerated bad news on ocean acidification and played down the doubts. Former GBRMPA chairman Ian McPhail accused activists of "exaggerating the impact of coral bleaching for political and financial gain". Dr McPhail told *The Weekend Australian* it "seems that there is a group of researchers who begin with the premise that all is disaster".

Concerns about quality assurance in science are not confined to the reef. Drug-makers generated headlines when they were unable to replicate the results of landmark studies in the basic science of cancer. Professor Ridd poses the question: "Is the situation in marine science likely to be worse than in medicine and pharmaceuticals, psychology, education? Do we have a decent system of replication and checking of results?"

"Is there a chance that many marine scientists are partially driven by ideology? Is there a chance that peer review among this group is self-selecting of the dominant idea? Is there a robust debate without intimidation?"

Professor Ridd wants an independent agency to check the science before governments commit to spending hundreds of millions of dollars.

There is no doubt the current bleaching is a serious event but there are also many questions still to be answered. The consensus position of reef experts is that bleaching events will get worse as ocean temperatures continue to rise because of climate change.