



# Great Barrier Reef: Team hunting for bleaching survivors finds first new coral species in 30 years

Exclusive by the National Reporting Team's George Roberts

Updated Thu 7 Dec 2017, 6:29am

**A scientific team scouring the Great Barrier Reef for so-called super corals is claiming the discovery of a new species that appears to have survived devastating mass bleaching events.**

It is thought to be the first new coral species found in more than three decades.

The non-profit scientific research organisation Great Barrier Reef Legacy took 10 top marine researchers on a 20-day expedition to the far northern reaches of the reef.

The ABC was the only media organisation on board.

Great Barrier Reef Legacy's director John Rumney said the trip's main objective was to search for super corals that managed to survive bleaching.

"In the process we found an incredible reef with new species of coral — that's great, just fantastic," he said.

The team counted up to 181 species of living coral at the site, the exact location of which is being kept secret for conservation reasons.

Among those on board was Charlie Veron, known as the Godfather of Coral, who's responsible for discovering 20 per cent of the world's coral species.

"We've found corals that have never been recorded on the Great Barrier Reef and then we found at least one really outstanding new species," Dr Veron said.

He said it was the first previously unknown species to be found in more than 30 years.

---

**RELATED STORY:** Great Barrier relief may be found in 'robust source reefs'

---

**RELATED STORY:** 'Crack team' kicks off 'pivotal' mission to save Great Barrier Reef

---

**MAP:** Cairns 4870 

---

## Key points:

- Great Barrier Reef Legacy was on hunt for super corals that managed to survive bleaching
  - The team counted up to 181 species of living coral at one northern site
  - Among them was "at least one really outstanding new species"
-

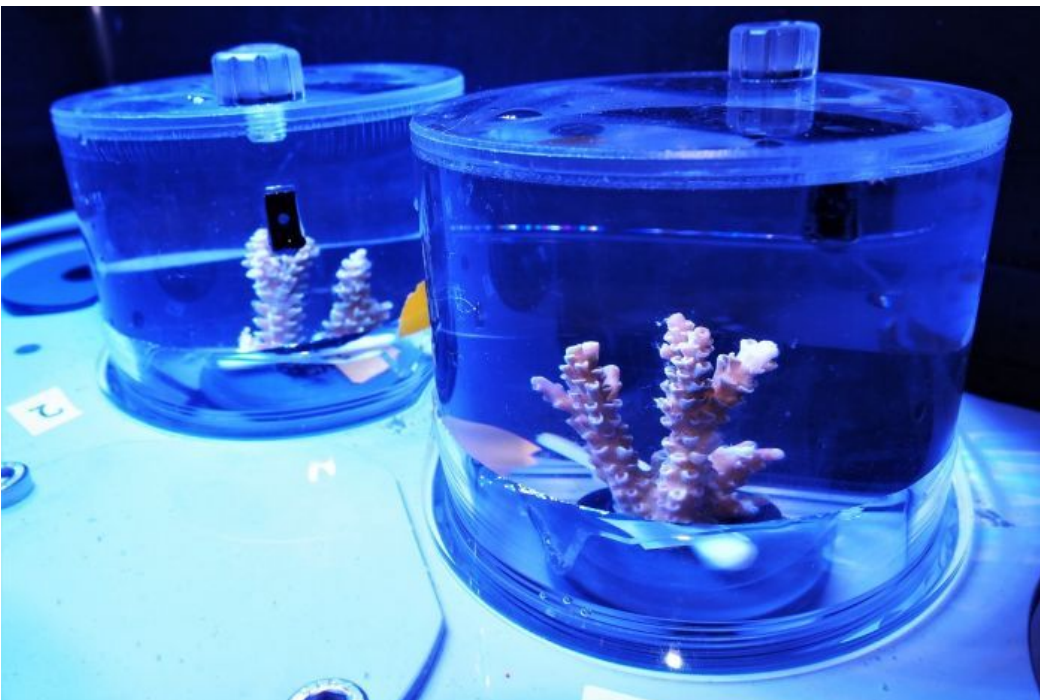


**PHOTO:** Dr Charlie Veron holding a sample of the new species, with John Rumney and Dr Dean Miller. (Supplied: GBR Legacy)

"Luckily we had the level of researchers, the skill on board, that they could identify all the species," Mr Rumney said.

"This was one of the most, if not the most biodiverse site that they'd been on in the past 30 years."

Dr Veron said the site was overwhelmingly good.



**PHOTO:** Samples of *Acropora tenuis* in incubation chambers, to keep them alive for scientific testing. (Supplied: Dr Emma Camp, UTS)

"[It has] more species of *Acropora*, that's the staghorn coral, than any place I've ever seen on the Great Barrier Reef," he said.

"It was really incredibly unexpected, and it's the richest site of *Acropora* ever found on the Great Barrier Reef."

The expedition team has now mapped the area using GPS tagging and high-tech 3D modelling, so the health of this newly discovered site can be monitored.

Samples have also been taken for scientific testing to see what makes these corals different and able to withstand conditions that caused others to bleach.

## Great Barrier Reef could be gone in 15 years: Dr Veron



**PHOTO:** Bleached staghorn coral on the extreme northern reaches of the outer Great Barrier Reef. (Supplied: Zack Rago)

The discovery of such a diverse and healthy site was an anomaly during the expedition, which otherwise found devastating cases of mass coral bleaching.

ABC News was granted exclusive access to travel on the expedition, and can confirm that most of the sites visited on the far north of the reef were still severely suffering.

Dr Veron warned that the species discovery was no reason to be complacent.

"I think the Great Barrier Reef could be entirely dead within 15 years," Dr Veron said.

"All it needs is a succession of bleaching events like we've had in the past couple of years and we won't have a Great Barrier Reef."



**PHOTO:** The *Acropora tenuis* found alive, surrounded by otherwise dead coral. (Supplied: Dr Neal Cantin, AIMS)

He said that was the worst-case scenario, if nothing urgent was done to address global ocean warming.

"What's much more likely is progressive deterioration," he said.

Dr Veron, who has been diving on the reef for more than 50 years, has seen it deteriorate from ocean warming and agricultural run-off.

"Oh it's horrible. It's like seeing the family home slowly burning, and you scream for a fire-engine ... and you just see it falling to bits. It's just awful," he said.

The reef expert said carbon dioxide emissions were the biggest threat, as they were linked to high ocean temperatures that caused corals to turn white and eventually die.

But he said ocean temperatures did take a while to catch up with atmospheric warming, so there was still a chance to protect the reef.

## Coral is going to 'need a helping hand'

Mr Rumney, a veteran tour operator of 40 years, said science was the key to finding the solutions.

"We must all really start to focus on what we can do to make sure we have a Barrier Reef in the future," he said.

The director of Great Barrier Reef Legacy first started agitating for greater protections for the reef more than 20 years ago and founded the organisation last year in order to fund research.

He said other tour operators needed to step up and fund reef research for the sake of saving tourism.

"We need to track this to find out what parts of the Great Barrier Reef are going under and what parts are surviving, because then we can work out why," Mr Rumney said.



**PHOTO:** Eggs in the *Acropora spathulata* coral, ready for release when a rare second spawning event is due in December. (Supplied: Dr Emma Camp, UTS)

Dr Veron said funding more research was vital, if the reef was to survive.

"Once we know why corals are surviving in one place more than another, we can give them a helping hand. They're going to need a helping hand," he said.

Mr Rumney added: "As long as we don't continue to have these warmer than normal temperatures caused by carbon [emissions], then the reef can recover."

Only when humans switch from burning fossil fuels to relying on renewable technologies can carbon emissions begin to reduce enough to slow or reverse ocean warming, according to Dr Veron.

"We've just got to carry on until that time arrives and hope that we've got enough of the Great Barrier Reef left to re-seed, re-populate and regenerate new life," he said.



**PHOTO:** A turtle glides past an eerie forest of dead coral covered in algae on the Great Barrier Reef. (Supplied: Dr Neal Cantin, AIMS)

The 10 marine biologists and mapping experts on board the Legacy expedition included scientists from the University of Queensland, University of Technology Sydney, and the Australian Institute of Marine Science.

The group undertook the largest underwater and surface mapping survey since the last two bleaching events, including in areas so remote that they haven't been visited for years.

Samples taken of the super corals are also being tested to see how things like genetic differences affect corals' ability to withstand bleaching conditions.

**Topics:** environment, oceans-and-reefs, great-barrier-reef, cairns-4870, qld, australia

*First posted Thu 7 Dec 2017, 6:09am*