



SHORTCUTS | *Coral biobank*



CLOCKWISE FROM FAR LEFT: A new biobank is keeping our precious corals safe; Citizen scientists help monitor the health of the reef; Collecting coral for the Forever Reef Project; Visit Cairns Aquarium to learn all about this important ecosystem; The biobank project forms part of plans for a living coral ark.



# TREASURE CHEST

If one of the world's most important ECOSYSTEMS fails, this clever insurance policy may *PROVE* to be its saving grace. Emily McAuliffe takes a look inside the world's first living CORAL BIOBANK.

IT'S THE MOST peaceful nursery I've ever seen. Never mind that the babies constantly feed, incessantly tussle and never properly go to sleep. But, then again, it's hard to sleep when you don't have a brain.

In three raised 'cribs' in the Cairns Aquarium, 392 small pieces of coral resembling tiny trees, sticks of scored calamari and clumps of marshmallow-pink hair sit side by side, growing bigger every day, thanks to their uncanny ability to clone themselves.

The corals live a charmed life, gently rocked by a wave machine, cleaned regularly by their fishy friends and made to feel at home with lights that mimic sunrise, sunset and cloud cover over the Great Barrier Reef. The only bother is when their neighbour gets too close and they sting to mark their territory.

"We might need to move that one," observes our guide Makayla Grady, as her discerning eye notices a coral's thin tentacle giving its tank-mate a whip on the backside (in a *Chucky*-like twist, this kind of play can result in fatalities). "We love them, but they can get a bit competitive."

Though the little corals in front of us are in fact clusters of tiny animals (polyps) living with their best mates, algae – they're not babies as such. Rather, they're fragments of mature corals living on the Great Barrier Reef and their state-of-the-art nursery is the world's first living coral biobank – a facility designed to insure one of the world's natural wonders. Because climate change is posing a significant threat to reefs worldwide and time is running out.

The living coral biobank, established as part of the Great Barrier Reef Legacy's Forever Reef Project, aims to ultimately protect all 415 species of hard coral on the Great Barrier Reef, later expanding to include soft and international corals. The full collection is planned to lodge in a giant 'coral ark' in Port Douglas, with smaller biobanks dotted along Queensland's coastline. The biobank will keep our precious corals safe and they can be replanted on the reef if things go belly up in the big blue.

Though the ark is still a few years away, the Cairns Aquarium is letting visitors get acquainted with the biobank by offering 30-minute tours through its onsite holding facility. The aim is to help

people understand more about the fascinating but underrated creatures that underpin the entire ecosystem of the Great Barrier Reef.

Despite their indisputable importance, corals received little attention until a mass bleaching event on the Great Barrier Reef in 2016 highlighted their fragile nature.

"Pre-2016, the only real questions I got asked [from guests] were where to find Nemo or how long a turtle lives for," says Great Barrier Reef Legacy operations manager Paul Myers, who has spent 15 years on the reef working as a dive instructor. "After the biggest coral bleaching event on record, the questions became a lot more educated and were more centred around, 'Tell me about the health of the reef, tell me about coral bleaching.'"

Though bleaching became a hot topic, the nuances of the corals it impacted remained largely elusive. "About two years ago, I did a course on coral ID and there were about 30 people in the room. All of us had been working on the reef for more than 10 years, but none of us knew anything about coral identification," says Myers. "Firstly, it is so tricky, but also, you just don't get asked."

That's where the living coral biobank tours play an important role, not just in safeguarding the reef's corals, but to help educate people on their importance and vulnerability, and, in turn, the importance of tackling climate change.

Unfortunately, climate change is a complex, long-term problem to resolve – and in the context of the Great Barrier Reef, time is not on our side. This leaves the biobank as one of the few hopeful signs that things might work out OK. "It's not the solution, but it's adding resilience to the system," says Myers. "If we lose the reef, it's gone forever."

So although the little, brainless corals in the biobank can never truly sleep, knowing they're tucked away safe and sound in their quiet, comfy cribs means that we can. **31**

*On top of the regular admission fee, living coral biobank tours at the Cairns Aquarium are \$20 per adult and \$14 per child, with all tour fees donated to the Forever Reef Project.*



PHOTOGRAPHY: MARTIN STRINGER (ALL GBR LEGACY PROJECT IMAGES); GETTY IMAGES/VOLKANTG (CORAL); TOURISM AND EVENTS QUEENSLAND (CAIRNS AQUARIUM)

