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Big Isle woman restores Fijian reefs by planting coral



By Rob Kay

The deteriorating state of Hawaii’s corals has been documented extensively. Whether it’s the return of the “blob” caused by temperature warming, tourists treading on coral or overfishing, our reef system is under stress.

Fiji also faces environmental pressures due to climate change, and some residents are taking extraordinary measures to protect their marine ecosystem.

Roberta Davis, a Hawaii island native who resides in Taveuni, Fiji’s Garden Island, has learned a great deal about restoring reefs.

When she and her husband, John Llanis (who also hails from the Big Island), first visited Taveuni in the 1980s, they said, it reminded them of Hawaii in the 1960s. Experienced divers, they had never seen anything as pristine as Fiji’s reef life — except in books.

The couple liked Taveuni so much, they opened a small resort called Makaira Resort. Roberta runs the day-to-day operations (and takes visitors snorkeling) while John takes guests deep-sea fishing.

As in any small business, Makaira had its challenges, but nothing compared to Cyclone Tomas, a Category 4 storm that ravaged the Fiji archipelago on March 9, 2010.

“Our three bungalows were damaged, and the normally calm cove in front of our property was hammered by 15- to 20-foot waves. It crushed our corals,” she said. She was devastated by the destruction of the reef, which had been a “huge tourist attraction.”



Roberta Davis, who resides in Taveuni, Fiji's Garden Island, has turned a coral planting project at Makaira Resort, the place she owns with her husband, John Llanis, into a tourism attraction. Above, coral is stung from buoys to withstand ocean surges.

While they were busy fixing up the property, a friend from the mainland arrived and told Roberta that she could also “fix the reef” by planting coral. “Just pick up a fragment or broken coral,” he instructed her, “fit it snugly in a nook and it will grow.” Nobody in Fiji was doing coral gardening at the time, and she gave it a try. Her friend was right. She discovered that 90% of the coral fragments she replanted grew back.

In three years “her” reef revived. Then, in 2016, Fiji was devastated by Winston, an even stronger cyclone which again reduced her reef to rubble.

Roberta understood that she’d made a mistake by replanting in the same spot where the destruction from Winston had originally occurred. She began to study how the reef was coming back and analyzed the wave action in order to replant more strategically. Through trial and error she determined where best to put her efforts.

She also realized she would need a coral “bank account” that could withstand storm surge. She created a coral reserve by stringing coral on ropes attached to buoys farther offshore.

Her account began to grow, and her experiments in replanting the reef blossomed once again. She was confident if another cyclone wreaked havoc, she’d have new stock to replant.

She also turned her coral planting project into a tourism attraction. Her guests, whom she describes as “environmentally minded,” were encouraged to plant coral.

“People like to feel they can make a difference, and they responded enthusiastically,” she said. “Sometimes groups of guests come to our property with the sole intention of coral gardening.”

She’s also heartened that other properties, including the Outrigger Fiji Resort (managed by Honolulu-based Outrigger Hotels and Resorts), also engage their guests in coral planting.

In the meantime she consulted with the Fijian government about turning her reef into a marine conservation zone. She’s still waiting for the government to approve her marine reserve, and she’s confident that it will happen.

“The Fiji government understands that people get their livelihood from healthy reefs and that visitors travel from around the world to see them,” she said. “I’ve had tourists tell me that our inshore reef is the most beautiful that they’ve ever experienced.”

Roberta sighed, “We hope to keep it that way.” ——— *Rob Kay, a freelance writer based in Honolulu, is the creator of Fijiguide.com. He can be reached at robertfredkay@gmail.com.*

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