

WORLDWIDE BLEACHING

DIVERS TURN TO CORAL CONSERVATION

Growing number of divers learning citizen science techniques

KOH TAO

ADIVER glides over an expanse of bone-white coral branches, recording the fish that dart between the ghostly arms extending from the sea floor off the Thai island of Koh Tao.

Nannalin Pornprasertsom is one of a growing number of scuba divers learning conservation and citizen science techniques as coral reefs experience a fourth global bleaching event.

After a two-week course on the island, the 14-year-old can identify coral types, carry out reef restoration, and help scientific research on coral health by recording the colour and tone of outcroppings at dive sites.

"It's just something that I can do that will have a good consequence for the environment," Nannalin, who has been diving since she was 12, said after a series of dives.

"I want to help the reef."
And she is not alone.

The Professional Association of Diving Instructors — better

known as PADI, one of the world's leading dive training organisations — said conservation certifications jumped over six per cent globally from 2021 to 2023.

This year, it is launching a major shark and ray census, harnessing its network of divers to collect data that will shape protection policies.

On the island here, Black Turtle Dive offers courses on everything from how to properly "dive against debris" — collecting marine plastic or stranded fishing nets — to coral restoration techniques.

"There's an increased awareness," said Steve Minks, an instructor at Black Turtle.

"There's a lot of bleaching going on and there's a lot of concern about the marine environment."

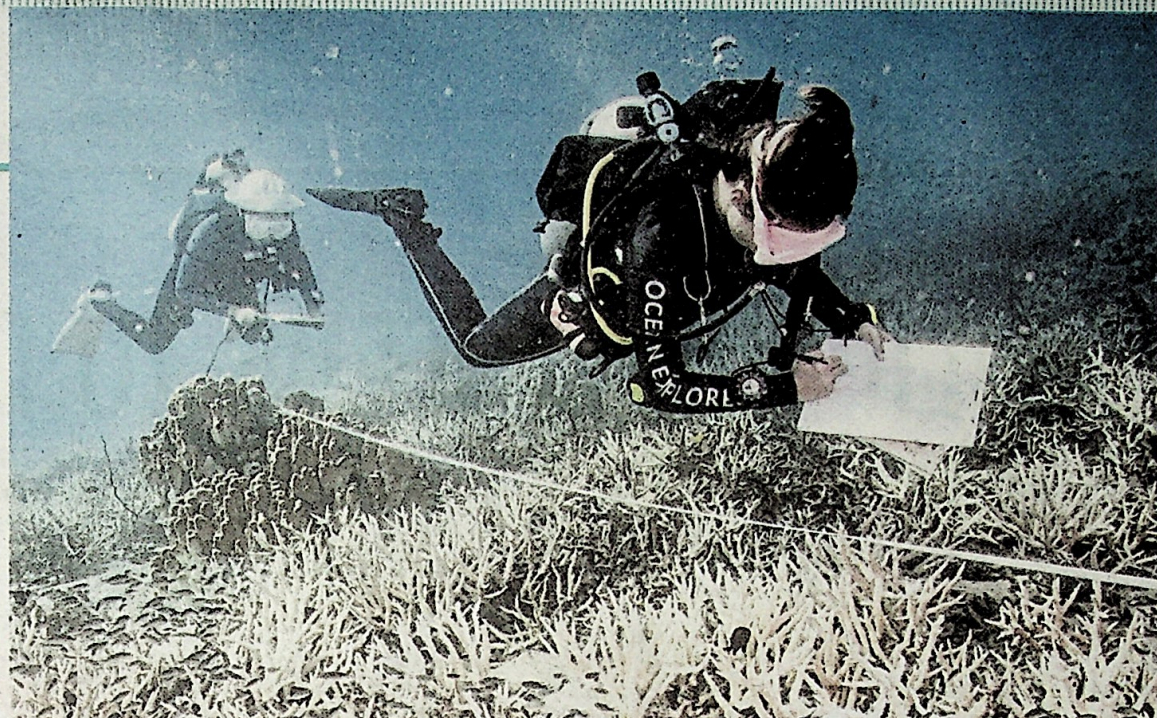
Coral polyps are animals that depend on algae to provide most of their food. These algae also generally give the reef its colour.

But when the sea is too warm, the polyps expel the algae. The reef turns white and the coral begins to starve.

Coral bleaching has been recorded in more than 60 countries since early last year, threatening reefs that are key to ocean biodiversity and support fishing and tourism globally.

The death spiral is everywhere in the waters of the Gulf of Thailand around Koh Tao.

Worst affected are branching species that grow quickly, but are



A Black Turtle Dive conservation teacher and her student surveying bleached corals around Koh Tao island in Thailand. AFP PIC

also less resilient.

If water temperatures come down, they will have a chance at recovery. But for now, their spectral stems are even visible from the surface, glimmering through the aquamarine water.

"I was not ready for that much bleaching, it's quite an impact," admits instructor Sandra Rubio.

The 28-year-old says bleaching and other marine degradation are driving divers to take her conservation courses.

She walks students through how to identify species, including soft coral. Wave at it, she explains, mimicking wiggling a hand in the water, and wait to see if it "waves back".

The skills taught at Black Turtle and other dive shops are not simply theoretical.

Artificial coral reefs are dotted around the island, actively rebuilding marine habitats.

And Nannalin's data on coral health is part of Coral Watch — a global citizen science project that has produced numerous research papers.

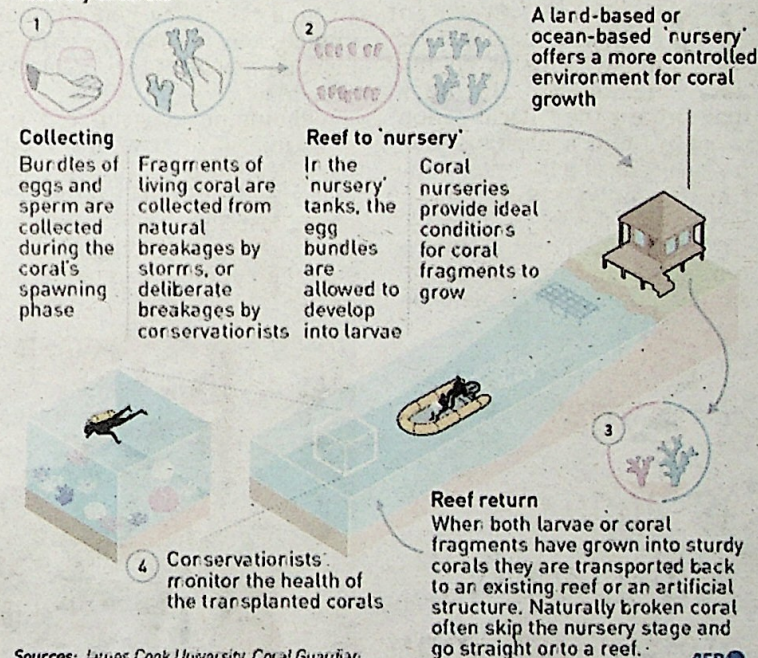
"What we're doing is collecting data for scientists so they can actually work with governments and authorities," said Minks.

On a sunny afternoon on Koh Tao, a boat carries a starfish-shaped rebar structure designed by schoolchildren out to sea,

CORAL RESTORATION

Reef restoration slows reef decline and can help accelerate the natural recovery of corals

Propagation methods: ○ Sexual ○ Asexual



where it will become Global Reef's latest coral restoration project.

Since it was founded two years ago, Global Reef has transplanted around 2,000 coral colonies, with a survival rate of about 75 per-

cent, said Gavin Miller, the group's scientific programme director.

"It's not really going to maybe save coral reefs globally... but what it does do is have a very, very large impact locally." AFP