

# Diving the coral reefs of Mozambique

**Tim Ecott joins a conservation project and, armed with a clipboard, counts fish**

TWENTY FIVE metres below the sparkling waters of the Indian Ocean the rock pinnacle sticks out from the reef like a talon. Behind me a coral wall stretches north and south as far as the eye can see, and its sheer face plunges into an underwater chasm 500m deep.

Hanging above the dark space I am one of six divers armed with clipboards and pencils. At a signal from marine scientist Nick Hill we begin to count fish. He gives us just ten minutes, and it is hard not to concentrate on the biggest creatures; 23 grey reef sharks that circle the pinnacle, but retreat when we get too close. Like us, they congregate here because the fish life is extremely rich.

Returning to the surface after an hour underwater, we sit on the dive boat and compare notes. Nick laughs when he sees I have “counted” 2,000 small fish — blue-lined snappers. “Really?” he says. “But maybe you’re right.” On this dive we were supposed to be looking at large open-water species, and between us we saw sharks, giant grouper, black snappers, sweetlips, Napoleon fish, barracuda and even a dogtooth tuna.

The dive was part of a month-long survey of marine life at Vamizi Island, northern Mozambique. Vamizi is about 12km (seven and a half miles) long, one of dozens of islands in the Quirimbas archipelago that stretches towards the Tan-zanian border from the northern tip of Mozambique’s 3,000km-long coastline. Until recently it was rarely visited by tourists. You don’t have to be a marine scientist to stay here, but it helps if you like fish. Visitors stay at Vamizi Lodge, ten luxurious palm-thatched villas with a private view of an ocean edged with blindingly white sand. On my visit there were just couples on the island, but families are welcome.

The other guests are mostly British, and several admitted that coming here had a certain swank value, since not many people have heard of it and it’s not for anyone who’s counting their pennies. “This is slightly off the beaten track,” said Roger, a stockbroker from London. “And I didn’t want to go somewhere where everyone else was a banker.”

Banker or not, the villas provide a sumptuous holiday complete with giant four-poster beds swathed in billowing muslin. There are antique Zanzi-bari lamps and showers made of marble, day beds festooned in plump cushions and beautifully carved wooden shutters that allow the trade winds to cool the rooms without air-conditioning. At least once a week dinner is served beside a beach bonfire under the stars, and fresh fish is available at every meal. Game fishing and diving are the main activities, but the island is rich in bird life and one morning I was awoken by a pair of chattering samango monkeys sitting in a tree outside my room.

Vamizi is part of the Maluane conservation project, where scientific research is undertaken in collaboration with the Zoological Society of London. Turtles like the pure white sand beaches as much as the tourists, and there is a project to monitor and protect their nesting sites. The project will eventually open up tourist access to two further islands, Rongui and Macaloe, as well as 33,000ha of savannah habitat on the mainland.

Nick Hill, who is recording the fish population on this survey, was one of the first scientists to visit the island, at a time when the villagers had not seen a white man for more than 20 years. “If the island has to have tourists, then this is the best way of going about it,” he says. “Leaving the island undeveloped wasn’t an option in wild-life terms, because when we first arrived there were itinerant fishermen camping on this beach and killing the turtles when they came in to nest.”

The local African community is wholeheartedly behind the tourism project, not least because any extra cash is welcome in a society where people are living on about £1 a day. Now, islanders are employed at the lodge and fishermen are paid to supply fish for the restaurant. Vamizi may seem like paradise for the tourists, but the villagers have to buy their fresh water from the mainland several miles away by dhow. This is not a traditional island community — most of the villagers came here seeking safety during Mozambique’s bitter civil war. The war ended 15 years ago but life on the mainland is still not easy. Here, tourism revenue has been used to build a clinic and a schoolhouse, and the next stage of the conservation plan is to train some of the fishermen as reef monitors to help map the fishery resources around Vamizi.

At Kivuri village, about 13km from Vamizi lodge, I meet Ali Arroce, president of the village committee elected to decide on a zoned management plan for the reefs around Vamizi. “If we do not take things into our own hands with the help of the foreign experts,” he tells me seriously, “I do not know what our sons and grandsons will do for fish.”

The conservation plan involves designating some areas of reef where all fishing will be banned. Scientific evidence shows that these areas act as nurseries for breeding fish, and result in an overall increase in fish populations both in the protected area and nearby. One of the main challenges is to stop foreign fishing boats raiding the rich waters surrounding the island.

For scuba divers, Vamizi is something increasingly rare. The corals here are in excellent health, with no signs of the bleaching and disease that I have seen in Mauritius, the Seychelles and the Maldives. Deep offshore water brings currents that keep the water cool enough for the corals to thrive. Those currents bring nutrients to the reef, which acts as a habitat and nursery for hundreds of species of fish and invertebrates. More coral means more fish, for both villagers and divers alike. Underwater, I spot everything from tiny flatworms decorated with violet stripes to large Napoleon wrasse with lips so implausibly plump that they might have been injected with collagen.

Fish counting is hard work. Each day the team is up at 6am and in the water by 7.30. Using satellite navigation, survey sites are logged and a diver goes down and lays a tape measure across the reef. I help out, laying the tape along a contour line and tying it off every 15m to make sure it doesn’t get carried away in the current. There are two teams: one for fish and one for coral. The fish team swims along the line counting the number and types of fish visible within 5m either side of the tape. The coral team follows, photographing the reef and later analysing the diversity and types of coral found.

Johnston Davidson, a coral biologist from the Great Barrier Reef Marine Park Authority in Australia, is impressed by what he finds. “These reefs are easily comparable to the very best sites we have on the Great Barrier Reef,” he says. “Places like Vamizi are rare now, both in terms of the health of the corals and the likelihood of seeing the megafauna — marlin, sailfish, dolphins, sharks and even whales.”

Coral reefs around the globe are dying at an alarming rate, with 60 per cent of the world's reefs now showing significant damage and large-scale mortality. Global warming, pollution from sewage and tourism development all play their part. Here on Vamizi there is hope, a sanctuary for coral and fish that must be preserved.

*Tim Ecott is the author of Neutral Buoyancy: Adventures in a Liquid World*