

MARCH/APRIL 2011

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LUSCIOUS LANGKAWI

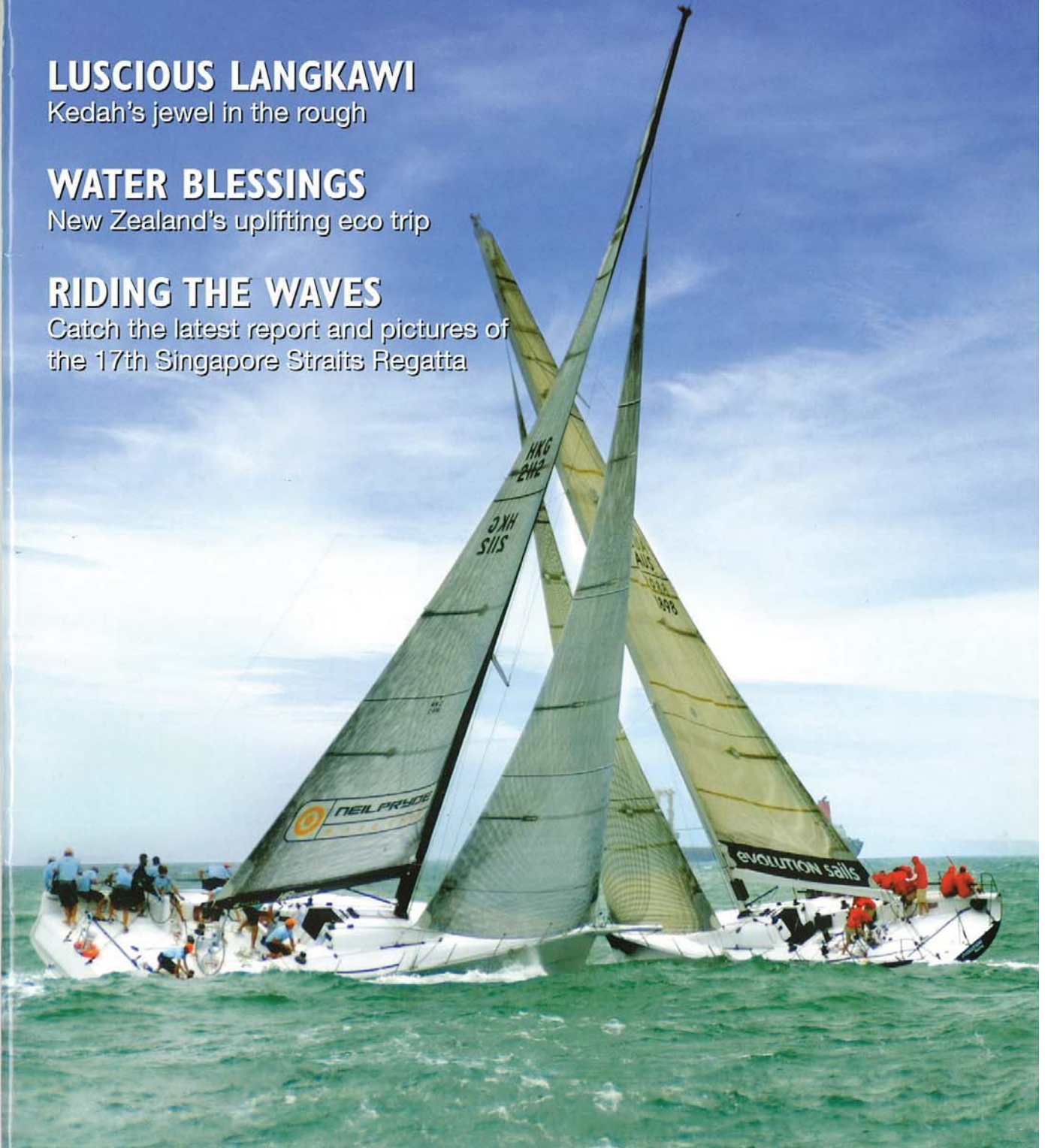
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Coral Reef Protection at Bali's Menjangan Island

By Orla Doherty

In the spring of 2010, Biosphere Foundation brought a group of students to the Menjangan Island Reef Project, in Bali. These students were on a year-long journey around the world in the Beyond Boundaries programme. Our mission was to open their eyes to the world of the coral reef and teach them a little about what is happening to the reefs around the world. The team were split into two groups. One group learned to identify several species of coral and to specify the different conditions that threaten their health, from coral disease to overgrowth by algae. The other installed a new mooring buoy to prevent further anchor damage by the tourist boats at one of the dive sites on the north side of the island.

We hosted our Principal Investigator, Dr Phil Dustan of the College of Charleston in the USA, along with local scientists Dr Stuart Campbell and Shinta Pardede from Wildlife Conservation Society, Indonesia. Under Dr Dustan's guidance, we began to develop the concept of measuring reef rugosity – the complexity of the reef's surface areas – as an indicator for the overall health of the coral reefs at Menjangan Island. Shinta taught us the fine detail of conducting fish biomass surveys, which we carried out at eight different sites around the island. Dr Dustan then used this fish data to compare to the rugosity data at each site and found a neat statistical correlation showing that the more complex the surface of the reef, that is, the more niches and habitats the coral reef provides, the greater and more diverse the

fish population in that area of the reef. We also encountered areas of reef that had been completely flattened in recent years, most likely by a combination of dynamite fishing and crown of thorns infestations. We placed temperature loggers at three different sites to record underwater temperature every couple of hours. This will be extremely valuable data when we return to collect it, especially since this year has been one of the most extreme in elevated sea water temperatures, causing widespread bleaching events which have also affected Menjangan Island.

When we return to Menjangan in March 2011, we hope to develop this research further and facilitate a Friends of Menjangan Network that

includes the Bali Barat National Park authorities, who manage the marine resources of Menjangan Island, local fishermen tourists, and schools to help implement the protection of Menjangan Island's coral reef. This time, SY Mir will be our base of operations as we dive the reef and assemble a team of Indonesian scientists and students to join us. These are our first steps in creating a long-term team to take on the management of Menjangan Island's coral reefs, Bali's coral jewel and destination. Come and visit us at Menjangan Resort and dive the beautiful reefs! 🐠

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