

# CORAL REEF

# environment

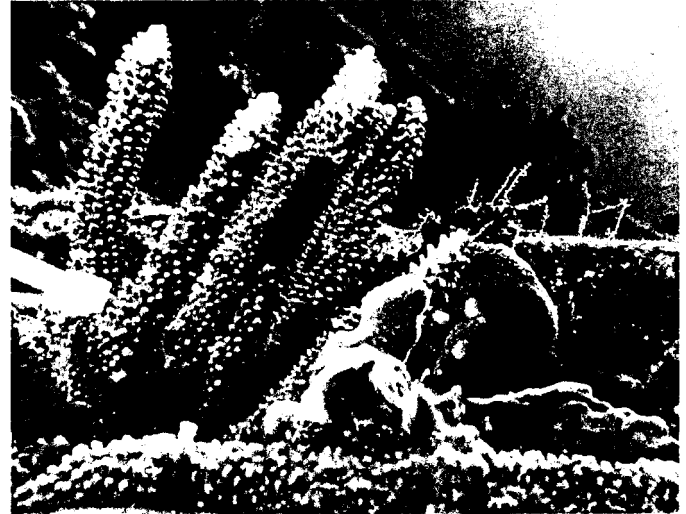
## Restoration in KOMODO

The Komodo Foundation and the Global Coral Reef Alliance (GCRA) are working together to install a number of "electric reefs" in the Komodo buffer zone. During January 2003, a joint team comprising Dr Tom Goreau and Dr Wolf Hilbertz of GCRA, Cody Shwaiko from The Komodo Foundation, and Ernest Lewandowski and Nurdin from Reefseekers Diving in Labuanbajo, installed the patented Bioreef system at three locations off west Flores.

The islands of Bidadari, Punggu and Kukusan lie within the Komodo National Park buffer zone. Each of these islands was devastated by the recent crown-of-thorns infestation, as well suffering from on-going effects of dynamite fishing.

The island of Kukusan was particularly hard hit by the crown-of thorns (COT). The fisherfolk of Kukusan were the winners of the September 2002 COT clean-up held in Labuanbajo, and it is appropriate that this island be the first recipient of the reef regeneration process. We utilized 12 rusted and discarded wire racks salvaged from a local pearl farm as the base for the reef. Power for the project was supplied by four solar panels that generate a 6 volt current and are rated at 10 amperes.

Once connected up to the solar panels, the metal structure immediately began to "bubble" as a chemical reaction induced the release of hydrogen gas. Within an hour, the rust had been partially removed from one of the pearling racks and bare metal was exposed. This process will continue over the next few weeks,



and once the entire structure is 'cleaned' and totally rust-free, a natural process of mineral accretion will begin. The calcium carbonate that accretes is the building material of reefs, and the entire metal structure will become completely coated in it. Broken and damaged corals affixed to the structure also benefit from the process, and grow at varying rates of 3 - 5 times faster than in nature.

A similar, larger structure was installed at Bidadari island, a 10 minute ride outside of Labuanbajo. This island is being developed as an exclusive dive resort by Reefseekers Dive Centre of Labuanbajo. These artificial reefs have become home to many unique species of healthy coral as well a myriad of colourful tropical fish.

We look forward to visiting these pilot protects in the upcoming months and monitoring the progress of the Kukusan and Bidada" reefs.

In May 2002, the karang Lestari Permuteran project, the fist Bioreef protect in Indonesia and the largest in. the world, was selected as the best coastal project in Indonesia at the National Coastal Zone Management Conference. In November 2002, the same project was the winner of SKAL International "Best Practices Global Eco-tourism" Award presented in Cairns, Australia. It has also been nominated for the PATA 2003 Gold Awards.

BIWA Communique, September, 2003

