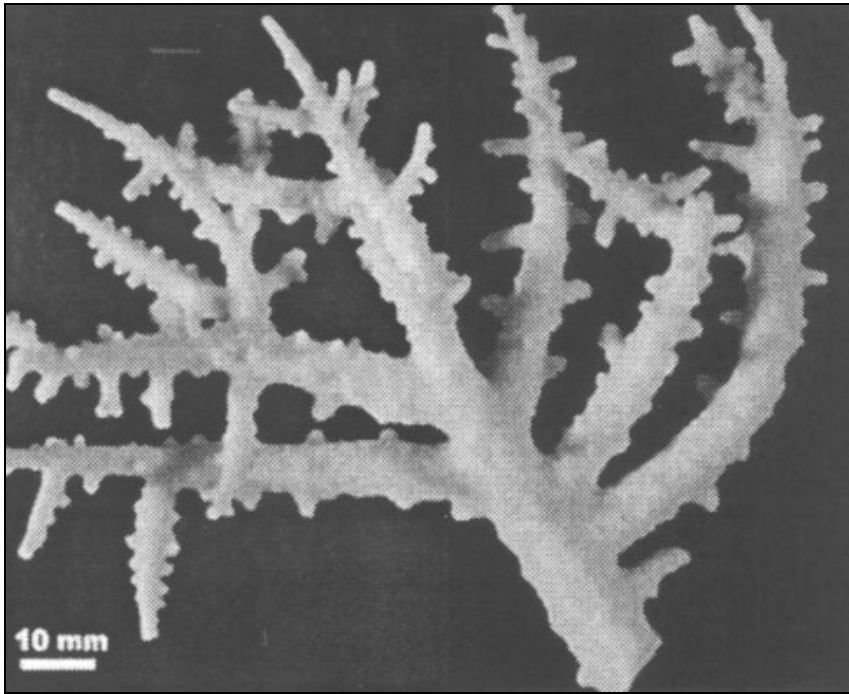


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Rongelap's unique coral

By SILVIA PINCA

During last year's research expedition organized by the College of the Marshall Islands marine science program to explore Rongelap Atoll's almost pristine coral reefs, part of the work was to recognize (identify) all the species or types of hard corals as well as fishes, from the tiniest and hidden ones to the larger and most obvious.

This difficult enterprise was accomplished by two of the scientists of the team, coming from Australia expressly to determine the coral and fish biodiversity for this atoll, similarly to what was done in Bikini and Mili in 2002 by the same group.

A comprehensive survey of biodiversity including the hard to find, hidden creatures is not an easy task, and it requires great dedication and perseverance. The coral scientist, Zoe Richards, was in charge of collecting samples of Acropora (table) corals in order to contribute to a collection of all such types from all over the world. This collection is found at the Museum of Tropical Queensland in Townsville, Australia, one of the most — if not the most — important museums for hard corals in the world.

She collected some representative samples of all of these corals and bleached them so that the internal skeleton of these tiny animals was clearly visible and observable by a microscope for accurate identification. This is necessary in order to tell one kind of coral from another: each species constructs its own mineral external support. Each skeleton of a coral is built as a web of limestone and as an intricate maze of channels. Once a coral dies, it is part of this skeleton that, partially eroded by the action of waves, forms the flat rocks and the sand that covers beautiful islands like RMI's. Sand is thus coral powder!

One of these collected corals from Rongelap lagoon was unfamiliar to the specialist. Once she was back in Townsville the doubt grew for her and other specialists at the museum so that they finally made a request to receive more samples from the same pinnacle site so that genetic analysis could be done to test the new coral.

With the help of Ron Douglas, captain of the yacht Kaimana, I found and collected a piece of this same strange coral. The samples were then shipped to Australia, where, after a detailed genetic analysis, they were confirmed to belong to a “new” species, which means a coral that had never been seen before anywhere else in the oceans of the world!

A new name was needed to identify this coral apart from all the other *Acropora* of the world. The new coral has been named *Acropora rongelapensis*, a name that witnesses its presence in Rongelap atoll, and so far only in Rongelap until some other research proves its presence somewhere else.

Protecting diverse marine life of atoll

“Biodiversity” is a term that indicates the complexity and richness of life. It is the number of species or individual types of organisms in the world or in an ecosystem.

The biodiversity of coral reefs is comparable to that of tropical rain forests, the richest ecosystems on Earth. Scientists from all over the world are working to list the species inhabiting this planet (several millions, and we still know only a minimal part of them), both on land and in the oceans.

They study a rich or a new ecosystem and when they find a species they don’t know they run a genetic test as the only irrefutable way to distinguish one species from another and to identify a new one — one that has never been described before or even seen before.

In the past century, and even more in the past 20 years, the world has been witnessing a crisis of biodiversity — a loss of species at a high rate, one of the highest rates in the history of the world.

The loss of species we are witnessing is largely due to changes resulting from human activities, often stemming from development, population pressure and increasing rates of consumption.

Increase in population, inconsiderate exploitation of resources (both coastal and oceanic) and rapid “development” on land should capture the attention of people that are concerned with the immediate future of this country and its inhabitants.

Policy makers from around the world now understand the urgency to preserve the wealth of nature and are starting to unite in a major effort to explore and conserve the biodiversity on which so much of our common future will clearly depend.

Similarly, Rongelap Atoll Local Government is interested in establishing sanctuaries in the atoll to protect the high richness of life and the tremendous amount of species of all animals and plants. One of such proposed sanctuaries is the area around Jabwan point, at the Southernmost tip of Rongelap main island.

The team of scientists from last year produced final reports on the results of the study along with recommendations on how to best preserve such a special atoll, one of the last rich and almost pristine places on Earth.

Now that a new species has been confirmed from this place we might start wondering how many others there are to be discovered. Such unique organisms are important for tourism and emphasize to the Rongelapese the exceptionality of their home.

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