

A PRO member's trip to Fiji

By Roger Newman

Fiji, a country in the South Pacific, is an archipelago of more than 300 islands. It is famed for rugged volcanic landscapes, palm-lined beaches and coral reefs with clear lagoons. Its major islands, Viti Levu and Vanua Levu, also contain most of the population. The people are considered "Melanesians" and have dark skin and strong facial features, but their culture is closer to Polynesian. Archaeology and genetics studies show that they are a mix of the two peoples.

This December my wife Audre and I were fortunate to travel to Fiji in the South Pacific. We were based on Vanua Levu, the second largest island. We participated in a project that was organized jointly by the California Academy of Sciences in Golden Gate Park in San Francisco, and Seacology, a non-profit organization headquartered in Berkeley, which works on islands around the world to protect the natural resources, especially coral reefs, and the local cultures.

We enjoyed our trip and learned a lot. We found that we can still enjoy scuba diving, even at 80 years of age! We can't do as much as we once did but that was predictable. We got a lot of benefit from the presence of two Academy scientists, Dr Terry Gosliner and Dr Meg Burke, both of whom accompanied us on our dives and also gave talks about their work in the evenings.

A lot of interesting and beautiful sea creatures were observed and photographed by members of the group. The coral reef there is in good condition although we did see a small amount of coral bleaching. In general, deterioration of coral reefs in the Indo-Pacific region, of which Fiji is a part, is much less dire than it is in the Caribbean and Australia. I asked Terry why this is and he responded that the Indo-Pacific reef systems have been developing for a lot longer time, which has given the species there the opportunity to specialize in smaller niches. This has made the biological community more resistant to ecological threats like climate change. His favorite creatures, the nudibranchs, are an example of this.

Among the animals our group observed were hard and soft colorful corals, waving anemones, sea fans, multi-colored nudibranchs (sea slugs), mottled giant clams, sea stars, red, blue, yellow and white Christmas tree worms and many species of fish. Some of the group saw eagle rays. Many of these creatures can be seen easily (and without the 11-hour flight) on a visit to the Cal Academy, which I heartily recommend. I am a docent there and go 3-4 times a month. Please let me know if you need more information about the Academy (Roger.net@gmail.com.).

One of our leaders, Dr Terry Gosliner, is a world authority on nudibranchs, which are soft-bodied slugs which often have bright colors to announce to potential predators that they are poisonous. There is a great diversity of nudibranchs around the world. Terry estimates that there are about 6000 species in all. He has found and named about 460 species! I am including some of them in the attached photos.

A high point of the trip was learning about Seacology, a Berkeley non-profit which works to protect coral reefs on islands around the world. They operate in about 400 village projects in 68 different countries, mostly in the tropics. Islands are species-generators so it is not surprising that a high percentage of extinctions are now happening on islands. They also are vulnerable to the negative effects of climate change. The Fijian islands are on the "ring of fire" which explains their volcanic origin. This means that they have some elevation and can tolerate some sea level rise, unlike flat and low "continental" islands like Guam and atolls like the Maldives.

The way Seacology's conservationists work is to approach a village with a proposed deal by which the villagers promise to protect their reef or other natural resource in exchange for getting help to build a school, put in a solar electricity installation, or other item which they need. The deal is made between Seacology and the village, bypassing the government. The money goes directly to the local contractor who builds the project, so without the usual skimming or trickle down of funds (no Peralta Effect). The result is that a reef can be protected for 10-20 years for a small amount of money which goes for something that we would like to support anyway.

The executive director of Seacology is Duane Silverstein, who was instrumental in creating the Goldman Environmental Prize. We accompanied Duane on a visit to a village which is in the process of applying for a project to build a schoolhouse. We approached the village with a gift of kava roots. Kava is a small tree that is cultivated and harvested after about 3-4 years. The root is dried and then powdered, much like coffee beans. Water is poured over kava grounds contained in a cloth, to create a drink which acts as a mild sedative.

Formal visiting rituals involve the drinking of kava. Everyone participates, creating a community similar to the Christian rite of communion. After elaborate rituals involving the wearing of leis, prayers, singing and dancing, we could get down to business. Duane and the local chief discussed the proposed deal and put their approval on it, although final details still need to be hashed out. Petine, the

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uncovers some amazing creatures



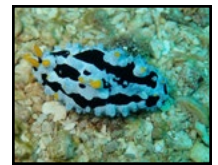
Kids Dancing



Roger and Audre in dive gear



Nudibranch Halgerda



Nudibranch Phyllidia



Clown Fish in Anemone



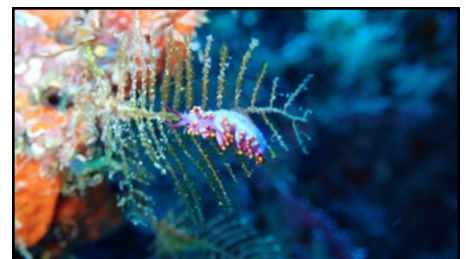
Dive-Reef Wall



Amputee starfish



Lionfish



Nudibranch Flabellina

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local Seacology rep, will coordinate the implementation after we have left.

Seacology is a 501c3 tax-exempt organization. They have a rating of 99 from Charity Navigator. Most of their employees are local in-country representatives who monitor the progress of the conservation projects and look for more opportunities. In Fiji alone they have 29 projects, partnering with coastal villages to protect reefs, mangrove forests, and other natural areas.

One of the ways Seacology raises funds for their projects is to operate trips for interested people to go on. The trips do not make money directly, but they do expose many prospective donors to the work that they are doing. Audre and I decided to donate to them after seeing the effectiveness of their approach. We could see that the money goes more directly to the projects than is often the case with more top-heavy NGOs. I recommend that you have a look at their website and consider going on one of their trips.

Another collaborative trip between Seacology and the Academy is in the works for next year in the Philippines. Audre and I hope to be participants in that one as well. ■