

PROMOS Final Report

Reef Explorer Fiji Ltd, Fiji Islands
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International Studies of Tropical Aquatic Ecology (MSc)

From October 2019 until December 2019, I conducted fieldwork in Fiji as part of my master's thesis in the ISATEC program at the Uni Bremen. I stayed at the Reef Explorer Field Station, which is located on the Coral Coast of Viti Levu, in Votua village, which has a population of approximately 300 people. I was working on coral reefs in three Marine Protected Areas (MPAs) and adjacent fishing areas to collect data for my thesis. These MPAs are managed and enforced by the local villages in order to support their traditional fishing grounds and ensure their marine resources are sustained for future generations. The MPAs were all very close to where I was living, either accessible by kayaking from the field station (Figure 1) or by taking the bus and snorkelling from the beach. At the field station, I had my own bedroom, kitchen and bathroom, and had access to the dive locker and field supplies. For the majority of my stay I lived here alone, but occasionally had 1 or 2 flatmates for a week or so. In larger cities, such as Suva, there are more options for housing, but affordable options for housing are limited on the Coral Coast, other than staying in budget resorts, Airbnb's, or in a village homestay.

Reef Explorer is a community-based education and research center that supports local conservation initiatives and development of sustainable livelihoods in Fiji. They provide ecotourism opportunities such as snorkelling tours, as well as cultural enrichment through homestays in villages. An important aspect of Reef Explorer's work includes coral reef restoration projects throughout the Fijian islands, where baby corals are grown from fragments in nurseries, then replanted on the reef in order to increase species diversity and ecosystem function. Reef Explorer collaborates with institutions and researchers from around the world to contribute to coral reef conservation, management, and scientific knowledge. This includes developing programs to educate the local communities about sustainable fishing practices, such as responsible harvesting of properly sized organisms and protection of endangered species.

To prepare for my trip and fieldwork, I needed to conduct a thorough literature review of my chosen topic, as well as discuss and develop my research plan with my supervisors. I also needed to prepare a proposal for my research plan, field supplies, and expected results. This proposal was then used to apply for funding and handed in to my course coordinator. Once my plan to come to Fiji was solidified, I needed to book my airfare. For this, I chose to first fly from Bremen to London, then overnight to Singapore, where I spent a night to explore and recharge before the second half of my journey. I then flew overnight to Sydney, and finally to Nadi in Fiji.

Upon arrival in Fiji, I was required to show the customs officer a letter from my supervisor in Fiji that proved I would be staying in the field station to conduct data collection. My passport was stamped with a 2-week visitor visa, and I was required to go to Fijian Immigration before the end of the 2 weeks in order to apply for an extension of 10 extra weeks. For this visa extension, I was required to have a copy of my passport and entry stamp signed by a Fijian notary (known as a Justice of the Peace and Commissioner of Oaths, or JP). JPs are located in larger towns, such as Sigatoka, and they require the original document present. Once my copies were certified, I brought them as well as proof of funds, proof of a plane ticket leaving Fiji, and a letter from my supervisor to the immigration office in Suva. I also paid a fee of 180 FJD. After a week, I returned to the immigration office to have my visa stamped in my passport. For stays longer than 3 months, getting a visa (i.e. Research Permit) is a long and expensive process, often involving having to leave Fiji for two weeks before being given permission to return. For this reason, I chose to stay

for 3 months on a Business/Volunteer visa and conduct my fieldwork according to this shorter timeframe.

Although Fiji is generally a safe place, it is still a third-world country and general precaution is advised for your belongings and personal safety, especially at night. Theft is common in Fiji, especially in larger cities or towns. When you first move to your accommodation in Fiji, I would recommend checking that you can securely lock the doors and the windows are intact. One important thing to note is that Fiji is a male-dominated society, especially in the traditional villages, and men tend to be very forward, although friendly, towards women. As a Caucasian female travelling and living alone, I received lots of attention from men, but there were a few instances of men being too interested and bordered on harassment. For any women travelling to Fiji, it is important to trust your gut if a situation or person does not feel right, and to tell a higher-up member of the village so that they can handle the situation. If you are staying in a village, it is also worth considering dressing modestly when you go out and even when you are in your yard (if it is not private).

On the Coral Coast, there are 2 kinds of buses: local and express. The local buses will stop anywhere along the route and are cheaper but usually take longer, however, they are quite the experience as Fijian reggae music is normally played loudly from the speakers. You can only pay local bus fares using an e-card, which can be purchased and topped-up at many stores in towns and even in some villages. The express buses go between Suva and Nadi, including the airport, and have very few scheduled stops (although they will occasionally pick up/drop off at other places if you ask). The buses are usually unreliable, so hitchhiking is a common way to get around the Coral Coast, and it was how I got to my field sites most of the time. Although there are specific vans that pick up, people are often willing to pull over and drop you off along their way, usually for a dollar or two. I hitched many times throughout my stay and always felt safe. You should be very careful when walking on the road because it is the only highway that goes through the island, so it is normally busy with large trucks and people that drive much faster than the speed limit.

The area around Sigatoka is known as the “salad bowl” of Fiji because of its fertile soils, so you will find an abundance of fresh and cheap fruits and vegetables. Fijians commonly buy and sell their produce at markets, which are found in larger towns or in stands on the side of the road near the villages. You will find pineapples, papayas, mangoes, bananas, coconut, tomatoes, lettuce, beans, eggplant, cucumber, cassava, okra, and much more. Vendors also sell juices, hot corn, samosas, chicken curry roti, prawns and fish. Most other food items can be found at the supermarkets, however, don't expect specialty items (i.e. hummus, almond milk) to be readily available, or cheap. Almost anything else you need can be found in stores in the larger towns and in Suva, the capital city of Fiji and the largest in the South Pacific region. The largest town on the Coral Coast is Sigatoka, which I would take the public bus or hitch a ride with the local vans. On Sundays, many shops are closed or have limited hours as it is considered the day of rest.

During the first week of my stay in Fiji, a group of high school students from Australia were staying in Votua village as part of a cultural enrichment experience. This was perfect timing because I was able to participate in their events and learn about the Fijian culture along with them. We visited a nearby waterfall, the Sigatoka Sand Dunes National Park, as well as the beautiful white-sand Natadola beach where we had a barbeque lunch. This also provided me with the perfect opportunity to do some sightseeing while I was still getting used to living in Fiji.

Life in a Fijian village is very different from Western life, but it is very easy to get used to. Generally, everyone runs on “Fiji time” so one can expect things to be rather unhurried, and after some time here, you will find that you are living on Fiji time too. The homes in the villages are basic yet painted colourfully, and usually the aunts, uncles, grandparents and cousins all live together in the same home. The children love to play together in the village and in the sea, until 6 or 7pm when the bell is rung for them to return home for a bath, church and supper. You will often find people playing pick-up games of rugby, which is the most popular sport in Fiji. Also,

expect that many people do not wear shoes most of the time and choose to walk around barefoot. Everyone in the village was very welcoming, often sharing with me their food, homes, and kava, a special Fijian drink made from a root native to South Pacific islands. There are also many dogs, cats, chickens, and sometimes horses or cows that roam in and around the villages. It is important to note that this is a third-world country, so the power and water supply is not always reliable, and the living conditions are more rustic than what many westerners are used to.

I had the unique experience of being immersed into the traditional Fijian culture and I was able to learn some of their customs and language. For example, upon arrival, I needed to attend a *sevusevu* ceremony, where I gifted a bundle of kava to the chief of the district. I was then considered a member of the village and allowed to work in their traditional fishing grounds for my research. For this ceremony, and whenever I entered the village, I was required to wear a *sulu*, which is a wrap skirt worn by both men and women in Fiji. Generally, the shoulders should also be covered, but tank tops are accepted if they are modest. In Fiji, community and family is extremely important, especially in the villages because everyone is related in some way or another, so large gatherings are very common. For special occasions, *lovo* is prepared, which is a traditional feast where the food is cooked in the earth. Chicken, fish, and shredded coconut are wrapped in taro leaves and placed over hot stones with vegetables, such as cassava. The food is then covered with more leaves, empty rice bags, then dirt, and is left to cook for a couple of hours. Other dishes such as curry, sausages, potatoes, eggplant, coleslaw, spinach, and fresh fruit are served alongside the *lovo* (Figure 2). A large place mat is set up on the floor and the food is eaten only with your hands. Sometimes laying on your belly is the easiest way to eat!

One of the most important parts of village life in Fiji is being able to grow or catch most of your own food. Children are taught from young ages how to fish, to cut open a coconut, and to harvest medicinal plants for tea. I was also highly impressed with their coconut weaving skills to make baskets and to wrap food in, as well as their ability to chop down an entire palm tree to collect coconuts. Indigenous Fijians depend greatly on the ocean and many still go out fishing on the reef in front of their villages, in the traditional fishing grounds, or *qoliqoli* (Figure 4). The MPAs that I was working in are called *tabu* and entry is highly restricted in order to protect a healthy stock of corals and fish to support the fishing area.

For my fieldwork, I needed to collect data on damselfish abundance, as well as their effects on the coral reefs (Figure 3). This required me to go the sea to snorkel on most days (except on Sunday, the day of rest, where most activities are forbidden, and it is encouraged to just relax). Because I came to Fiji alone, I had to carry out most of my fieldwork by myself, which proved quite challenging. It took me a few attempts to get used to juggling lots of field gear all the while fighting the strong currents and avoiding hitting fragile corals. The coral reefs in Fiji are definitely the best I have ever seen, with dense thickets of colourful, healthy corals and lots of fish. The fieldwork was challenging but in the end it was rewarding to see all the data I had collected.

During my stay I was able to help conduct surveys during the annual coral spawning, where coral polyps synchronize the release of their eggs and sperm for reproduction. I was very excited about the opportunity to participate in this 3- to 4-hour night survey, however, things did not go as planned, and I began to shiver and lose sensation in my extremities. For this reason, I retreated to shore after only an hour in the water, but then needed to wait another few hours for my field mates to return. Luckily, a villager passing by offered to take me to his home so I could dry off and warm up. He literally gave me the clothes off his back, and his mother prepared me some tea and rice. I then joined the rest of their family to watch the Rugby World Cup on television. They also gave me a pillow and blanket to lay on the floor (Fijians do not usually have sofas, only a large rug or placemat) until I was picked up by my field mates. I was overwhelmed with their kindness, and I will never forget the help they gave me.

My last week in Fiji was during Christmas time, and I was able to experience a true Fijian Christmas. I was invited to join a celebration and *lovo* feast with one of the clans in the village. We sat in a large room, with the men in the center, the women and children along the walls, and

the elders at the front of the room. We drank kava, sang Fijian carols, and paid tribute to family members that had passed away this year, then ate a lovely feast of traditional Fijian food. I then spent the rest of the day with my supervisor and his family, as we sat outside playing cards and *vidividi* (Figure 5), eating cookies, dancing, and, of course, drinking kava.

Although the majority of my time in Fiji was pleasant, there were many times that I felt a lot of isolation while living at the field station, especially in my first month or so. A lot of this isolation was due to cultural differences, and language barrier, as well as my not knowing many people in the village yet. I also felt isolated from my friends and family back home in Canada due to the large time difference, which made calling them very restrictive. Luckily, summer holidays began at the end of November, so the village kids were always inviting me to play cards, go for hikes to the nearby waterfall, and play in the sea. By the end of my stay, many of the villagers and kids knew me, and made me feel very welcome in the village.

Ultimately, I am extremely happy with my choice to study in Fiji and feel as though I could live there forever. The Fijian people are the friendliest in the world and have truly warmed my heart with all they have shared with me. They have taught me how to truly relax and take it easy, which is something I have been needing to do for a long time! I also learned to live off the land and to appreciate the simple things in life, and that you can be happy with less. I am hoping to take these lessons back home with me and implement them in my life from now on. The villagers I met during my stay are truly family, and this made my departure extremely emotional. I am planning to return someday to visit the village, and possibly to work, study or teach in the area.



Figure 1 View of Votua village during my morning commute to collect coral reef data.



Figure 2 Traditional *lovo* feast served with various Fijian dishes and fresh fruit.

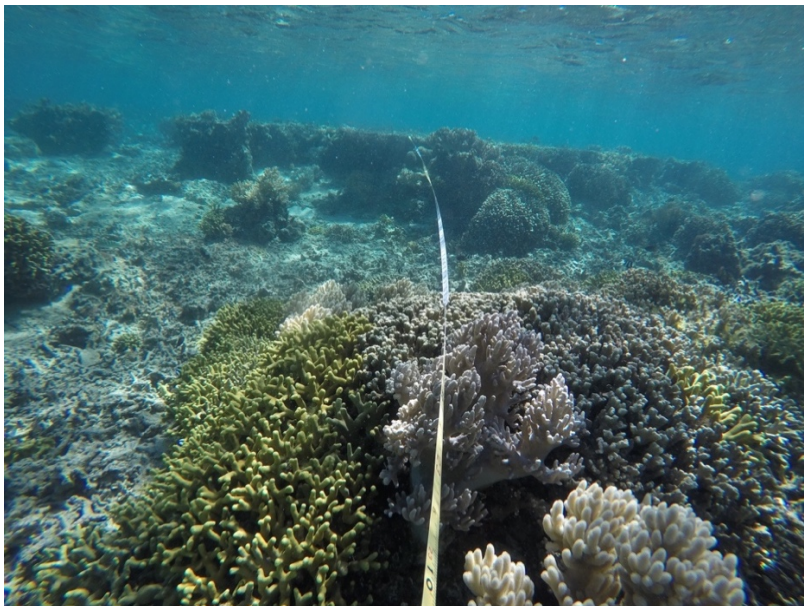


Figure 3 Transect to quantify the abundance of damselfish and the benthic community on a local coral reef.



Figure 2 Villagers fishing on the coral reefs in front of Votua village.



Figure 3 Playing *Vidividi*, a Fijian game similar to pool, but involves flicking wooden pucks.