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The XII Mexican Coral Reef and III Pan American Coral Reef Congress in Ensenada, Mexico, 22nd – 26th April 2024; polychaete identification training at the Natural History Museum of Los Angeles County, California, U.S.A, 15th – 19th April 2024

In early 2024 I was extremely grateful to receive a Travel Grant from The Royal Society of Biology which allowed me to travel to Los Angeles, California to receive polychaete identification training at the Natural History Museum, and Ensenada, Mexico to attend the XII Mexican Coral Reef and III Pan American Coral Reef Congress.

Having conducted successful field seasons in 2022 and 2023 as part of my Ph.D. research I had collected over 2,800 specimens from Caribbean coral rubble beds that needed to be identified. I am using a combination of traditional morphological identification methods and DNA sequencing techniques. Many of the specimens collected are less than 1 cm in length and therefore very difficult to identify. Having reached out to taxonomy experts, I was invited to the Natural History Museum of Los Angeles County to receive some training in identification techniques. The museum also agreed to take my collected species and curate them into their permanent collection for other researchers to use in the future.

I spent five days at the museum, where I worked with experts from the polychaete, crustacean, fish, and echinoderm departments to both improve my personal identification skills and to work on identifying the collected specimens I donated to the museum. We spent most of our time at the microscopes looking for the key features of different taxonomic families. From there we were able to work through various taxonomic keys and identify the specimens to the lowest classification possible. These identifications were then used to cross reference with the genetic data I had generated, which is housed in the global open-access Barcode of Life Database. Fellow researchers from around the world can access this information to use in their own research.

After finishing up at the museum in Los Angeles I made my way south to Ensenada, travelling overland for two days. I visited Joshua Tree National Park and then spent a day SCUBA diving out of San Diego. When working away from home on a very busy schedule, it's important on weekends to relax and reset. For me, that means getting in the ocean. I was really excited to dive in giant kelp and hopefully see some sealions. I am so grateful that I got to encounter some very playful sealions, a juvenile harbour seal, a broadnose sevengill shark, and a horn shark. I made it to Ensenada late Sunday afternoon, went to the conference venue for registration, and prepared for an exciting week of coral reef presentations.

The XII Mexican Coral Reef and III Pan American Coral Reef Congress was held at the Ensenada Centre for Scientific Research and Higher Education, which has a beautiful view over All Saints Bay. The conference had four keynote speakers, three poster sessions (with over 200 posters presented in total), and over 80 oral presentations. Topics ranged from transcriptomics and depth gradient speciation to coral reef conservation and seabird nutrient effect on reef fishes. There were presentations covering corals, reef fishes, sea urchins, disease, upside-down jellyfish, scientific diving, migration, and climate-change effects. It really was a conference which covered all things coral reefs! It is always so inspiring to see what ground-breaking research is taking place around the world.

Wednesday of the conference was activity day! We had the option of paragliding, a wine tour, SCUBA diving, or just a relaxing day at the hotel. Of course, I choice SCUBA diving! A dozen of the delegates had a fantastic day out on the boat. We were lucky enough to see four different species of whale on the boat ride and had two fantastic dives. Activity days at conferences are a great way to network in a very relaxed setting and refresh midway through a very busy week.

Thursday evening was my turn to present my research. In the large multipurpose room I attached my freshly printed poster to my assigned poster board and waited to share the importance of coral rubble

beds to fellow coral reef researchers. Research into this topic is lacking throughout the coral reef science community, and I was not surprised to be the only presenter working on the subject. People were interested in my project, and I left the poster session with contact details for several fellow researchers who I am excited to collaborate with. Networking is such a large part of attending a conference, and it is a great time to catch up with fellow researchers from around the world that you don't often get a chance to chat to in person. I am the treasurer for the Student and Early Career Chapter of the International Coral Reef Society, and it was great to meet other committee members who I had only seen on Zoom!

On the last day of the conference, we all gathered for the conference dinner at the Hotel Coral. These events are a nice way to unwind at the end of a busy week. They often include cultural aspects of the host nation, and this one was no different. After dinner we enjoyed some Mariachi music; my ceilidh dancing skills do not translate to salsa dancing! But it was an entertaining evening none the less.

I am incredibly grateful to the Royal Society of Biology for awarding me a Travel Grant, allowing me this opportunity to present my research and gain invaluable skills which will help me in my future career.



After over 2000 dives I finally got to play with a sealion!



Working at the microscope at the LA Natural History Museum.



View over All Saints Bay from Ensenada Centre for Scientific Research and Higher Education.



One of the fantastic views I had as I travelled overland from Los Angeles to Ensenada, Mexico.



One of the fantastic nudibranchs we saw on the activity day during the conference.