

Blog Post

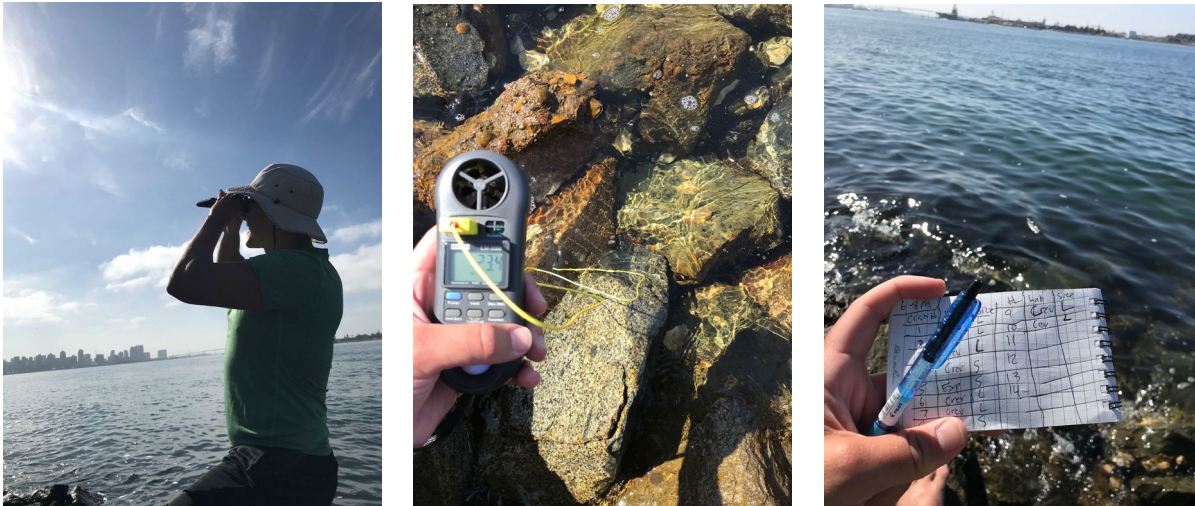
This summer I had the pleasure of being a part of the summer research program at San Diego State University's (SDSU) marine ecology research facility, the Coastal and Marine Institute Laboratory (CMIL). This was my second consecutive year being a part of the program and I cannot express enough how grateful I am for the opportunity to be a part of this amazing research community. This program has connected me with other marine scientists, taught me many valuable skills, and has helped me in both planning my classes for my undergraduate degree as well as preparing me for graduate school. It sounds cliché, but I would not be where I am today without this program. It truly has made a huge difference in my life.

For this year's research program, I was an SDSU undergraduate intern working alongside my PhD candidate mentor, Lily, and another student intern from a local community college, also named Lily. We spent our summer studying how climate change is affecting crabs, specifically the lined shore crab, in Bodega Bay and locally in San Diego. Because crabs are fairly mobile creatures, they are able to choose cooler habitats when it gets too hot for them. Climate change, however, may cause even the cooler habitats to be too hot for the crabs, so we are aiming to determine what temperatures the crabs may be able to tolerate. Part of our work this summer included processing GoPro footage of crabs using ImageJ software to determine what habitats they are choosing to spend their time in. We would flip through the pictures in imageJ, monitor any crabs seen in the footage, and record whether they were in a pool, a crevice, or exposed to sunlight.



We also did fieldwork on Harbor Island to measure environmental conditions and conduct crab surveys monitoring crab activity on the island. We used a refractometer to measure salinity, and an environmental meter to measure air and water temperature, wind, humidity, and sunlight intensity. After measuring the environmental conditions, we would use transects (basically a

fancy measuring tape) to mark off 2 meter sections of the rocks along the shore and monitor the crabs within that area, recording which habitats the crabs were observed in.



On top of learning new fieldwork techniques and image processing software, we learned new data analysis techniques on the statistics program, R Studio. We had several professional development seminars that allowed us to interact with both professionals and other students in the field of marine biology to learn more about the field and begin to carve a path towards our future careers. Our mentors were also extremely helpful setting up several personal meetings to answer our personal questions and guide us through things such as the graduate school process, narrowing down career ideas, and tidying up our CV's and resumes.

To anyone interested in next year's summer program, I cannot recommend it enough! I have made several connections in the field, learned valuable skills, and also get to do what I love and work towards making our planet and all its life healthy again, which is something that I am very passionate about.