

If you were to witness my summer at CMIL flash before your eyes, you would see field trips to San Diego's beautiful bay and tidepools, exploration around CMIL's engaging lab, and fun lunch breaks with my amazing fellow intern, Jessie Cummings. When I look back at this summer, my experience here will stand out as a fun and insightful learning adventure.

I have been lucky enough to participate in CMIL's 2023 Summer Research Program, a nine-week program that offers an amazing opportunity for San Diego community and junior college students to participate in marine science research alongside a graduate student mentor. My mentor, Jessica Griffin, is focusing her dissertation on the relationships between seagrass and its surrounding organisms under certain stresses such as heat.

My first day was spent in San Diego's beautiful bay on Shelter Island, where my mentor and I stood waist-deep in the water, collecting seagrass to start our summer research experiment. Along with local sand and mud, we would use the seagrass to make our mesocosms. We then headed back to the lab where the real work began.

I had already spent time at CMIL before this amazing summer program, and it was great to be back. Unlike before, when I was volunteering before the pandemic, I was excited to experience a more official atmosphere and appreciated the structured work hours. My mentor, Jessica, provided a structured yet flexible work schedule that perfectly accommodated both me and my partner so we could all work together.

I spent my summer working with my fellow intern, Jessie Cummings, an SDSU senior, and our mentor, Jessica Griffin, a PhD student at San Diego State University researching at CMIL, as well as numerous additional students, researchers, and professors, who allowed me to assist them in their own experiments. Being in such a cooperative and kind working environment allowed me a look into projects outside my own, featuring oysters, anemones, octopi, fish, and abalone.

After setting up the 32 mesocosms, we used a full-spectrum grow light that cast a magenta-pink fluorescent glow over four sections of eight tanks. Each tank was a complete mesocosm with a unique pattern of sand, mud, snails, clams, eelgrass, bubbling airstones to provide oxygen, and various HOBO loggers to collect vital data. The tanks were assigned a treatment group of control, bivalves only, snails only, and both bivalves and snails together. Each of these treatment groups were replicated four times. We placed the smaller tanks, eight each, into four

larger tanks. Two of these large tanks were supplied with a heat source, while the others were left at an ambient temperature.

We added airstones to promote circulation and a set of UV full-spectrum grow lights on timers to replicate the sun and promote growth. We even tracked exact temperatures using HOBO loggers. Conducting this experiment taught me about various scientific methods and even new technologies like R Studio. One of the most fascinating methods we learned about was the hole punch method. Our mentor carefully punched a tiny hole into each seagrass shoot, which we later used to measure growth.

Overall I had an amazing summer, and so I'm so grateful I had the opportunity to be a CMIL intern.