

“I met my Crush”
C-More Research in Microbial Biology
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On Monday, June 23, 2012 I embarked on the *Kilo Moana Research Vessel* which was to be an incredible and an educational experience. My first impression brought an array of emotions to include sheer excitement and being awestruck by the varied jobs that were quite evident. I was particularly fascinated by the dedication and the fortitude that parlayed throughout the crew and the many Scientists that were on board. I had suddenly realized that I had met a lifelong dream of living among those, albeit temporary that were dedicated to the same cause.

As an avid scuba diver since I was a teenager, it has always fascinated me to explore under the water observing many of the differences from one location to another. One thing in particular is the varied pressure change according to the depth which for obvious reasons due to the weight of the water gets greater the deeper one goes. One such opportune experiment and intrigued me was taking some ordinary coffee Styrofoam cups, placed in a net and lowered to a depth of 2 ½ miles! I already knew that if you go 33 feet deep into water, the pressure increases by one atmosphere (by about 15 pounds per square inch). * Therefore pressure equals depth times 15 divided by 33. One mile alone would be $5280 \times 15/33 = 2400$ psi (over a ton per square inch!) As incredible as this seems, the cups returned to the surface literally miniaturized or crushed caused by this immense pressure. This of course is approximate and for exact calculations, a more complicated equation which takes into account the salinity, temperature, and water's slight compressibility.



Considering the seemingly complexity of these other variables gives rise to the fact why numerous tests are conducted by the Scientists. The amount of tests that were conducted during this voyage was mind boggling where data collection was taken typically every 6 hours! Once samples were carefully contained, much research was done

right on the vessel, while some were packaged to be sent off for further analysis.

Impressive to say the least, I met my crush in more ways than one, first realizing a dream of better understanding what type of research is being conducted to better understand our oceans and ultimately the health of the Earth. From this experience I am able to share these lessons to educate and hopefully inspire others to be a part of the “team” that works toward the betterment of this place we call Earth.