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### “Making Waves”

I've always been enthralled with the marine environment. Ironically, my first scuba dive was one of the worst days of my life. At age 15, I followed the class into the murky waters of Mission Bay and descended to watch my instructor pull an upset octopus out of a hole. He fiercely shook it until surrounded by ink, and released it. The poor creature shot directly at my leg and squeezed as I frantically tried to escape. Eventually recomposing myself, I found that everyone was gone. I'll never forget the darkness of that moment; being alone underwater, untrained, just me and an angry octopus. My frustration that day resulted in my decision to become an instructor. Fear of the ocean is unnecessary, but respect is required. That class marked the beginning of my marine science education and research diving career. Recently, I've trained on a semi-closed circuit rebreather, served on two university Diving Control Boards, and become a NAUI SCUBA instructor. Working as a scientific diver and managing various projects over the last 8 years aided in the conceptualization of my own Masters thesis, which is currently in progress at Moss Landing Marine Laboratories. I am combining my interests in ecology and phycology to address trophic patterns in the kelp forest environment.

All of my efforts are intended to drive me towards my career goal of becoming a Diving Safety Officer (DSO) for an academic institution. I feel that running a successful dive program while advancing marine research is my ideal professional goal. A DSO should inspire passion for marine exploration and conservation while promoting dive safety and education. I want to instill enthusiasm for marine research in students, while inspiring ways to conduct their projects safely. Upon completing my thesis I'd like to gain more global experience in research diving before advancing to a Ph.D. Last year I became a certified EMT and plan to work in hyperbaric facilities while studying diving medicine and rescue techniques.

Two years ago I began teaching scientific diving to other students at Moss Landing Marine Laboratories, in the hope of fostering the next generation of marine

scientists. It is a significant step towards my professional goals, but more importantly is an opportunity to give back to the marine community. People tend to protect only what they know and understand. That couldn't have been more obvious when I volunteered as a tidepool interpreter at the Stephen Birch Aquarium at Scripps, U.C.S.D. I encouraged the public to get up close and personal with organisms. At first they would have trouble identifying the plants from animals, but after a few moments the questions would graduate to aspects of physiology, survival strategies, and trophic dependencies. Eventually, some would volunteer to touch or feed sea hares, sea stars, or urchins affording me the opportunity to discuss respectful interactions and methods of protection for intertidal organisms. The real reward came when a visitor returned with friends, excitedly relaying the information and wanting someone they knew to share the opportunity.

That connection is the key to how I will make a difference in the world through my passion for the oceans. After teaching students how to conduct subtidal research, SCUBA safely, or even just to relax comfortably in snorkel gear, it's clear that enthusiasm for marine life is contagious. People who gather their courage and get wet fall in love with the ocean, thus inspiring their kids, family and friends to become involved as well. Unlike my first experience, I want to create a safe welcoming environment where beginners can discover kelp forests and witness firsthand the assets of productivity and biodiversity. Before long, a new diver will pick out a favorite organism based on a very personal experience. It might be a harbor seal that swam right up to check them out, or a tiny fancy nudibranch that they spotted in a granite crack. Just by engaging in underwater adventures, they can't help but learn, discuss, and open up to new insight. By presenting an ecological system to someone and allowing them to form a personal perspective, a small investment has been created. My goal is simply to plant the spark of interest. I demonstrate how education and skills training ensure confidence and water safety. Rarely do people want to take on new endeavors alone, and this paves the way for community involvement. The opportunities are endless in the form of dive clubs, beach cleanups, wildlife rescue, conservation outreach meetings, marine protected area committees, and research volunteers.

Political controversy exists about a host of issues like global warming, ocean pollution, and overfishing. I am not a one-woman crusade for a perfect ocean, but the beauty is that I don't have to be. A leader is effective when he or she inspires a surge of movement in the direction of change. As marine-related experiences, programs, and organizations grow in communities, more and more citizens will motivate to support them. I believe we can develop conservation representatives just by influencing everyday lives. One does not need to be a professional marine researcher to spread the word about carpooling, reusable grocery bags, and sustainable fisheries. I tell the inexperienced that it is easy to make these life changes once you have had a life-changing experience. I want to give them breathtaking underwater memories by encouraging exploration and investigation.

Specifically, I'd like to spend the summer as the Diving Safety Officer coordinating an underwater exploration program for children ages 8-13years at the Monterey Bay Aquarium. It's a wonderful opportunity for kids from all over the world to don surface SCUBA equipment and jump right into one of the exhibits on an adventure guided by an experienced instructor. Though it will be a switch from teaching university level-students and the rigors of scientific diving, instigating excitement and education about the marine environment in our next generation is simply another way I can make a difference. By teaching divers to respect the underwater environment, to pursue advanced education, and to keep one another safe during the process, I hope to serve as an example for the future direction of marine research.