

My interest in coastal ecology first developed when Hurricane Katrina hit New Orleans in 2005. My life was turned upside down. If a hurricane could do as much damage as Katrina did to New Orleans while it still had wetlands protecting it, how bad would the damage have been if the city were on the coast? From that moment on, what, if anything, I could do to stop New Orleans' buffer from eroding away was on my mind. My internship with Wetland Resources LLC allowed me to experience what work in the field of coastal restoration is like and provided me with real-world lab experience.

I was introduced to my supervisors, Dr. Demetra Kandalepas and Dr. Gary Shaffer, through a family friend. I originally planned on interning with Dr. Moreau, but he referred me to his colleague Dr. Shaffer when he learned that my interest was in coastal restoration. Dr. Shaffer teaches at Southeastern Louisiana University and his company, Wetland Resources LLC, is currently planting tens of thousands of water tupelo and cypress trees for the state of Louisiana. Dr. Demetra works at Tulane University and her research focuses on the fungal endophytes present in *Spartina*.

Prior to this internship, I had no real experience with biology outside of the classroom. I knew that I liked biology, but I had no idea if I wanted to pursue it as a career. This internship allowed me to gain experience in both the lab and field sides of biology. With Dr. Demetra, I got to go into the field at Fourchon, Louisiana, to collect samples for her lab. Dr. Demetra was working primarily with the fungal endophytes present in the roots and stems of *Spartina*. Not

only was I able to collect the samples, but I was also doing the lab work on those samples the very next day.

Our procedure in Dr. Demetra's lab was to choose the three healthiest-looking leaves from each *Spartina*. Those three leaves were then washed, the outside parts of the leaves were cut off, and what remained of the leaves was then cut into tiny squares. The pieces of each leaf were treated separately and plated on agar which I had made. Three plates were made for each leaf, consisting of sixteen leaf pieces each. Over the next several weeks, the agar plates were examined daily with a dissecting microscope, and any fungal growth was identified and isolated. Once the isolates had grown to a point where they were easily observable with the naked eye, the characteristics of the isolates were recorded. In addition to working with *Spartina* with Dr. Demetra, I was also in charge of watering Tulane's green house.

My work with Dr. Shaffer showed me a completely different side of biology. I spent all of my time outside in the field or in the green house. Dr. Shaffer plants seeds in the green house and once they are large enough, he transfers them into larger pots. Once they are big enough in their new pots, he takes them from the green house and plants them in his nursery in Manchac, Louisiana. From the nursery, he can take them to any of his restoration sites and plant them. I got to participate in all areas of Dr. Shaffer's work. I planted seeds, transferred seedlings from one pot to another, planted seedlings in the nursery, and took trees from the nursery and planted them in different sites around New Orleans. I also weeded the plants in the green house and the

nursery, and helped to make NEDs. A “NED” is a Nutria exclusion device. By planting the trees in the wetlands with these NEDs, Nutria are unable to get at the tree. Working with Dr. Shaffer showed me that there is actually a lot of physical work as well as mental work involved in biology research, and that was something that had never really occurred to me before.

This internship provided me with everything I could have hoped for in terms of experience. I got to explore both the lab and field side of biology. I also got to meet some of the people involved in trying to save Louisiana’s wetlands, and I learned about Tulane and Southeastern Louisiana University’s graduate programs. Because of this internship, I have learned that I do not want to study fungi. The lab work was interesting, but I learned that the subject of fungi is not one that I am interested in pursuing. On the other hand, I learned that I am very interested in pursuing coastal ecology and possibly participating in wetland restoration efforts in Louisiana. The internship provided me with a possible career path. I am still not sure what I would like to do with my life, but I know that this internship has helped me to narrow down my career choices.

I am very grateful to Career & Leadership Development for providing me with great opportunities like this one as a student. I knew this internship was something I wanted to pursue, but there was no way I could have done a completely unfunded internship financially. In doing this internship, I was able to learn a little but more about the field of biology. I was also able to make new connections in the field at schools I did not know much about previously. This

internship taught me useful skills for biology, helped me to refine my career choices, and helped me to form a professional network.