

Summer Internship Report 2017

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Hometown: Houston, Texas



Para La Tierra: Forest Research Pilar, Paraguay

Provide an overview of the organization/research project and a summary of your responsibilities, tasks, and/or projects.

My primary responsibility as an intern for Para La Tierra (PLT) was to design and carry out my own research project. For the two months I was with PLT, I conducted a vegetation and landscape survey on the different habitats and landscape types in the under-studied Paraguaya forest. I worked 48 hours a week on my project and various other tasks around the organization. I developed my project from start to finish with assistance from PLT staff and volunteers. Other responsibilities I assumed were specimen preparation for the museum, assisting with the community education program and the creation of a plant identification field guide.

During your internship, what did you accomplish or how did you make a difference? In what ways did you grow in your professional and technical skills?

I developed a unique landscape and vegetation survey methodology tailored to help PLT collect data on and describe the landscape types at their newly acquired field sites. This landscape survey was the first of its kind to be carried out there. The success of my research depended on nothing other than the work I put into it. I wrote a literature review of vegetation and habitat types of sub-tropical South America. With my methodology, and the help of dedicated volunteers, I surveyed 27 100m x 100m randomly selected quadrats throughout the PLT field sites. I recorded 180 species of vascular plants representing at least 51 families. I applied the skills I have learned in my major-specific classes to analyse and interpret my data and findings in the statistics program R. I created statistical models and descriptions of the various habitats and found significant differences in habitat composition and species distribution. I was able to define specific landscape types that have never been studied before by their species assemblage and structural composition. The results of my project show clear

distinctions in species assemblages and structural variables between habitats. At press time, Jeremy Dickens and I are working on formatting my findings to submit for publication in a scientific journal.

Describe a problem that you helped to solve at your internship. What skills or knowledge from your education at Sewanee helped you address the problem?

On the return trip from a field site at San Rafael Nation Park on the other side of the country from Pilar, we discovered that we were two seats short in the PLT truck- the seats we had arrived in were taken up by gear that needed to be returned to Pilar. I volunteered, along with another intern, Tom, to take a slew of buses back to Pilar, yielding our seats to the supplies. My experiences at Sewanee have taught me that sometimes giving up your seat is all it takes to make life easier for others. Thirteen hours and three bus rides later, Tom and I made it back to PLT without incident and the equipment made the trip safely as well. By sacrificing the potential comfort of a car ride, I saved the PLT administration another trip to San Rafael.

In what way were your teamwork skills strengthened?

My project was an ambitious endeavour for an individual. Luckily for me, nothing is done alone as a member of PLT. There are volunteers that come from the community and abroad to work with PLT for the sole purpose of gaining experience through helping and facilitating others. I was put in a managerial position with the two of the volunteers. They helped immensely with the data collection portion of my research, saving me hours of work that would have otherwise been done by myself alone. However they did not enter the field knowing exactly what to do, when, and how. It was up to me to inform them of my methodology in order for them to effectively assist me in data collection. I did not enslave the volunteers and sit back, drinking a lemonade while they measured the canopy height of the quadrats for me. Rather, we worked together to tackle the immense task of surveying landscapes and identifying plants. It was through my clear instruction and explanation of the goals and methods of the survey that we were an effective team. I am indebted to the help of the PLT volunteers for their willingness to learn from and work alongside me.

How did your internship affect your career plans?

Working with Para La Tierra has solidified my desire to work abroad for a research nonprofit. I want to keep learning, both experientially and academically. The opportunities available at localised research nonprofits allow one to connect with a community and landscape. I want to leave my mark on the world of ecology through research, scientific publications, outreach, and communication.

In what ways did your internship cause you to encounter people of different backgrounds from your own? What steps did you take to communicate effectively with such persons? What did you learn from such persons' perspectives?

Para La Tierra is based in Pilar, Paraguay. Paraguay is, definitively, a developing country facing socio-economic issues such as government corruption, inflation and massive class divides. Being in Pilar, we worked with members of the local community in order to introduce the concepts of conservation biology and change their perspective on the way Paraguayan ecology should be treated. The community education program portion of PLT worked intensively with children in an after-school and weekend program known as the Eco-Club. By helping out with the Eco-Club program and activities, I interacted directly with the children of Pilar and was given an opportunity to understand their perspectives on the natural world. The concept of scientific names fascinated them and they loved pointing to trees and asking me for their name. "*Copernica alba*," I would say, pointing to a black palm in the plaza. They would squeal and whisper the name to one another before asking for another. Outside of the community interaction, PLT is an organization of international heritage.

Founder Karina Atkinson is from Scotland. My project advisor, Jeremy Dickens, is from South Africa. Jorge Ayala, the PLT handyman and education program coordinator, is from Paraguay. He speaks Spanish, English, Guarani, and Portuguese. Interns from the UK and the Netherlands also made their home at PLT. Some interns were not as far along their undergraduate studies as others and needed more guidance. Working with people from across the globe taught me the unifying power of the passion for ecology. There were many late nights where a Texan, a Brit,, and a South African all themselves seated around the same desk, pouring over plant identification keys.

Words of advice for future interns (housing, transportation, etc.)?

Take the La Encarnacena bus from the terminal to Pilar: it leaves at either 12:30pm or 10:30pm. It is the best bus service in Paraguay. Also go see Iguacu Falls while in the country.

Words of thanks to your internship funding donors:

Ecology and research has always been on my radar. Working with Para La Tierra was the burst of high-octane ecological motivation I didn't even know I needed. I got to work hands-on in endangered ecosystems and plan my own research from scratch. I took full advantage of the time I was afforded during my internship and never hesitated to get involved and make connections, as any Sewanee student would. I owe my thanks and gratitude to the funding I was provided, for it made this trip not only feasible but incredible. I try to stay away from the cliché, but, for lack of a better phrase, this summer has been magnificent. Again, words alone cannot express my gratitude for the opportunities I was given. To my donor: Thank you, thank you, thank you. I refuse to let your kindness and generosity go unappreciated. P.S. [Self Promotion ahead] if you would like to a snap shot of what working with PLT was like and wish to stay up-to-date on my travels feel free to check out my blog (in particular this post): <https://kiplingklimas.wordpress.com/2017/08/09/capuchins-in-the-mist/>