

Summer Internship Report 2017

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Hometown: Sewanee, Tennessee



**Biology Research Assistantship
Sewanee, Tennessee**

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

My main project was the research the constructed wetlands at the Sewanee Utility Department, specifically its anuran populations. I also assisted my partner, Ansley Murphy, with her salamander research project. Occasionally I was called on by professors briefly aid in various other projects.

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?

Our constructed wetlands are a newer and relatively unresearched innovation in environmental science. Their purpose is to contribute to conservation efforts for wildlife and water. My research has provided a profile of the anuran population and health of the Sewanee constructed wetlands and surrounding sites. This will indicate the health and safety of Sewanee's constructed wetlands, helping us determine their usefulness. Hopefully, it will lead to additional research and improvements. Before this internship, I had never done long-term research before and was new to the entire experience. I was constantly learning on the job, both with general procedure, and the specific research I was doing. An example of this would be learning how to transition from the drive of field work to the focus and efficiency of lab work. Similarly, I had no experience in amphibian handling or identification before this summer. Now, I can identify the frogs and toads of Sewanee by sight, sound, and life stage. While this knowledge is interesting, more importantly, it has taught me the effort and learning rate required for future research projects.

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?

In the beginning, I found it particularly difficult to identify tadpoles. While they may vary in size, in their early stages tadpoles look very similar. Often, the best way to identify them is by looking at their mouthparts under a magnifying glass, and even then their identifying marks can be ambiguous. There are no professors at Sewanee who specialize in anurans, so while identifying species, I had to do a lot of research on my own. This included combing the internet for academic papers, going through the library for books and pictures for comparison, and developing my own intuition. If I hadn't had database access or experience in independent study, all provided by Sewanee, I would not have been able to accurately do my research.

In what way were your teamwork skills strengthened?

In having a research partner, most of my internship was spent being part of a two-person team. It was our responsibility to make sure we devoted equal amounts of time and effort to both of our projects. I had to learn to plan ahead and then communicate to Ansley what I needed. Then when that failed, I had to be flexible. This was especially applicable when Ansley had to leave Sewanee before her research was finished to study abroad. While she was out of the country, I had to take over her whole project and finish the data for her. Communicating over iMessage, finding the extra time, and learning a new set of procedures and information took a large amount of patience and effort, but we got the data and finished the research. This internship developed my teamwork skills to the point that I could still work with my partner internationally.

How did your internship affect your career plans?

I am seriously pursuing a career in wildlife biology, so this internship was my first experience with scientific research. I was able to develop a foundation of skills that will grow and develop as my career furthers. I was also able to develop connections with professional wildlife biologists that I plan to continue. I consider this internship to be the beginning of my professional journey.

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?

I wasn't encountering people with different backgrounds as much as I was encountering people with different priorities. Throughout the internship, it was important to go out of my way to be considerate and polite to those uninvolved with the research. For example, because I was doing research at the Sewanee Utility Department's property, I needed to make sure that they understood what I was doing, when I would be within the gate, etc. While it would've been easy to disregard their feelings, it could have led to misunderstandings and tension. I made sure to communicate to the SUD with respect and patience.

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

If you're relying on your own car/bike/etc, always have a backup plan. A few days of car issues sentenced me to computer work and it was a bit of a letdown.

Words of thanks to your internship funding donors:

I would like to thank them for this opportunity. Navigating the "path" in college is confusing and intimidating, but this internship has made me more secure in myself and my future. My experience over the summer was priceless and I am grateful for it.