Summer Internship Report 2017

Kailey Bissell, C’18
Hometown: Tuscaloosa, Alabama

Biology Research Assistantship:
Behavior Ecology of Freshwater Fish
Sewanee, Tennessee

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

I conducted research on the behavioral ecology of freshwater fish that we have in Sewanee. Specifically, I examined the behavioral responses of individuals after witnessing their friends getting stressed out by predator cues. I then subjected these witnessing individuals to predator stress to observe whether this kind of information can be transmitted socially (via their friends). Ultimately, this helps scientists to understand whether fish are able to share information regarding danger in nature. We discovered that fish are able to alter their decision making according to the social information they received. In addition to this research project, I assisted in collecting data from another project, and was the main caretaker of the fish aquariums. This gave me great insight as to animal husbandry and general care.

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?

During my internship, I completed a short-term research study and submitted a first draft of the final paper. This project is to be submitted for review and publication in a scientific journal, and this will impact the scientific community—specifically the ecology and behavioral science community. I grew in my skills of writing, developing and designing project methods, I gained insight as to fish husbandry, and I sharpened my organizational skills as I was balancing multiple projects at once as well as the care of over 200 fish.

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?

---

Summer Internship Report 2017

Kailey Bissell, C’18
Hometown: Tuscaloosa, Alabama

Biology Research Assistantship:
Behavior Ecology of Freshwater Fish
Sewanee, Tennessee

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

I conducted research on the behavioral ecology of freshwater fish that we have in Sewanee. Specifically, I examined the behavioral responses of individuals after witnessing their friends getting stressed out by predator cues. I then subjected these witnessing individuals to predator stress to observe whether this kind of information can be transmitted socially (via their friends). Ultimately, this helps scientists to understand whether fish are able to share information regarding danger in nature. We discovered that fish are able to alter their decision making according to the social information they received. In addition to this research project, I assisted in collecting data from another project, and was the main caretaker of the fish aquariums. This gave me great insight as to animal husbandry and general care.

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?

During my internship, I completed a short-term research study and submitted a first draft of the final paper. This project is to be submitted for review and publication in a scientific journal, and this will impact the scientific community—specifically the ecology and behavioral science community. I grew in my skills of writing, developing and designing project methods, I gained insight as to fish husbandry, and I sharpened my organizational skills as I was balancing multiple projects at once as well as the care of over 200 fish.

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?

---

Summer Internship Report 2017

Kailey Bissell, C’18
Hometown: Tuscaloosa, Alabama

Biology Research Assistantship:
Behavior Ecology of Freshwater Fish
Sewanee, Tennessee

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

I conducted research on the behavioral ecology of freshwater fish that we have in Sewanee. Specifically, I examined the behavioral responses of individuals after witnessing their friends getting stressed out by predator cues. I then subjected these witnessing individuals to predator stress to observe whether this kind of information can be transmitted socially (via their friends). Ultimately, this helps scientists to understand whether fish are able to share information regarding danger in nature. We discovered that fish are able to alter their decision making according to the social information they received. In addition to this research project, I assisted in collecting data from another project, and was the main caretaker of the fish aquariums. This gave me great insight as to animal husbandry and general care.

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?

During my internship, I completed a short-term research study and submitted a first draft of the final paper. This project is to be submitted for review and publication in a scientific journal, and this will impact the scientific community—specifically the ecology and behavioral science community. I grew in my skills of writing, developing and designing project methods, I gained insight as to fish husbandry, and I sharpened my organizational skills as I was balancing multiple projects at once as well as the care of over 200 fish.

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?

---

Summer Internship Report 2017

Kailey Bissell, C’18
Hometown: Tuscaloosa, Alabama

Biology Research Assistantship:
Behavior Ecology of Freshwater Fish
Sewanee, Tennessee

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

I conducted research on the behavioral ecology of freshwater fish that we have in Sewanee. Specifically, I examined the behavioral responses of individuals after witnessing their friends getting stressed out by predator cues. I then subjected these witnessing individuals to predator stress to observe whether this kind of information can be transmitted socially (via their friends). Ultimately, this helps scientists to understand whether fish are able to share information regarding danger in nature. We discovered that fish are able to alter their decision making according to the social information they received. In addition to this research project, I assisted in collecting data from another project, and was the main caretaker of the fish aquariums. This gave me great insight as to animal husbandry and general care.

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?

During my internship, I completed a short-term research study and submitted a first draft of the final paper. This project is to be submitted for review and publication in a scientific journal, and this will impact the scientific community—specifically the ecology and behavioral science community. I grew in my skills of writing, developing and designing project methods, I gained insight as to fish husbandry, and I sharpened my organizational skills as I was balancing multiple projects at once as well as the care of over 200 fish.

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?
A recurring problem throughout my internship was with the water treatment for the aquarium water. Because the water we use for fish tanks comes originally from the tap, the pH is variable and inconsistent. Several times we ran into the problem of too-acidic or too-basic water, and many fish died because of this. My advisor and I worked together all summer to attempt to balance the pH of the water and treat it differently, according to its need, to ensure happy and healthy fish environments.

In what way were your teamwork skills strengthened?
I conducted this research independently, with the guidance from a Sewanee professor, but I did share the responsibilities of fish caretaking. My advisor and I worked together with another student in the lab to share responsibilities as evenly as we could, but this often required coming into work on the weekends or after-hours to care for the fish, baby fish, and water treatments.

How did your internship affect your career plans?
My internship centered around the basic of ecological research, which is what I hope to do in my future careers. This internship helped me prepare for a life of this type of work--the commitments, the responsibilities, the sacrifices, etc. This internship also sharpened current skills and helped me to develop new ones, in addition to giving me insight on how to conduct future research projects and write papers for publication in scientific journals.

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 encountered and interacted with only one other student who was also conducting research in my advisor's lab. For a few weeks, we were both present and working at the same time and we shared many responsibilities regarding animal husbandry and lab technician duties. We communicated often about the care of the fish and what objectives we were set to accomplish for each week we worked together. From this I gained insight and experience as to what it might be like working with other researchers in the same lab but with different research ideas.

Words of thanks to your internship funding donors:
Thank you so much for supporting me and my research project! It was a great opportunity and has helped to prepare me for my final year at Sewanee and for a career in ecological research. I am very grateful to you!