

Personal Statement

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As a child, I never dreamed I could be a scientist. I never dreamed of this possibility because I did not have role models that looked like me in the field. As a result of my experience, I believe that representation is vital to help children, especially those of color, realize what they can become. As a first-generation college student and lower-income person of color, I want to be a role model for others who do not see this profession as an option, due to lack of both exposure and access to it. This drive, along with a passion for conservation biology, has pushed me to pursue a Ph.D. in EEB.

When I started university, I entered as an engineering major to make money and become a successful first-generation student. After going through my first-year coursework, I realized that I wasn't passionate about anything quite like I was about ecology. I decided to cultivate the love of the environment that I had begun to foster in high school and turn it into my career. Although it was difficult to see myself fitting in this field due to this lack of representation, I decided to register for an introductory course in Biology and take a leap. I eventually found research opportunities through an incredibly supportive group of graduate students and faculty who encouraged and ensured me that there is a place for me in this field.

I began to pursue my research interests in depth at the end of my second year at Florida State University. Throughout this time, I was able to narrow down my broad interests through a combination of coursework, research, and fieldwork. I learned more about how proximate mechanisms can influence individual variation in cooperative behavior in brown-headed nuthatch birds (*S. pusilla*). I conducted fieldwork in the Yukon Territory of Canada on red squirrels (*T. hudsonicus*) and learned more about the extrinsic and intrinsic variables that can affect social behavior. I scored audio recordings and observed brain dissections to learn more about an individual's song learning ability in zebra finches (*T. guttata*). Furthermore, in the Levitan lab, I observed how to incorporate components of population genetics with laboratory experiments to understand the forces influencing mating systems.

I had a new, broad interest in combining my passion for global change biology with my newfound interests in behavior, genetics, mating systems, and phenotypic plasticity. I was able to pursue a component of my interests within the Levitan lab by taking on an independent project. I designed an experiment investigating the influence of microplastics on fertilization success and sperm availability in purple sea urchins (*A. punctulata*). I pursued and took on this independent research opportunity so that I could not only learn about how organisms perform under environmental stressors and anthropogenic pollutants, but to learn more about the process of developing scientific questions, finding the methods to answer them, troubleshooting research setbacks, and practicing effective scientific communication.

I aim to pursue a graduate degree in the future and incorporate behavioral studies, genomics, and GIS modeling to provide accurate and relevant information to develop appropriate conservation practices based on successful ecological dynamics. The research conducted in Dr. Christina Riehl's laboratory uses genotyping and behavioral observations to investigate evolutionary theory, making it an ideal place to pursue my interest in understanding plasticity within avian behavior. Dr. Daniel Rubenstein's lab would allow me to learn how to generate models based on information about an individual's behavior in order to make predictions for conservation. Throughout this time, I aim to seize opportunities where I can learn more about creating educational materials and integrating new information into curriculums based on relevant research to help teachers best serve their classrooms in areas where environmental education is deprioritized. I believe that education is the key to bridging the gap in the representation of the STEM community. For this reason, I am passionate about pursuing higher education and learning new, innovative ways to present educational material that will allow us to bridge this gap.