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VCU Department of Biology
Personal Statement

Wilderness recreation has always been invaluable to me, and throughout college, I found that my studies in biology were supplemented by my exploration of remote environments. The summer after freshman year, I lived out of a tent in the backcountry of Isle Royale, observing the boom-and-bust cycles of its insect populations. In ecology class the following semester, we learned about carrying capacities and discussed complexities of island ecology. I spent the next summer canoe guiding out of Ely, Minnesota. Fascinated by the land history of the Boundary Waters, I tried to absorb as much information as possible on how humans have shaped its ecological narrative. After learning about the logging operations that gutted this wilderness and many others, I began to understand some of the vulnerabilities associated with second-growth forests and became interested in the science behind forest management practices.

Experiences like these led me to seek out opportunities in conservation, entomology, and field research. I graduated from Webster University with a bachelor's in biology, emphasis in biodiversity, this past spring. In addition to courses in biology, chemistry, and ecology, I took up electives in botany, zoology, microbiology, and advanced genetics. As independent research credit, a classmate and I started a creative scientific communication project, for which I study and illustrate various bee species. This will culminate into a scientifically grounded parody field guide, and I remain involved in this project. I presented posters of this project at a botanical society conference in Michigan and again at a research-across-disciplines conference on our home campus. My thesis investigated avian diversity along the Mississippi River. For this, I participated in USACE-led point counts in various wetland habitats before analyzing several years of such data in R studio. Analyses involved alpha and beta diversities, UMAPS, and differential abundance analyses. I delivered a final presentation to the department which included the methods, results, and interpretations of my study.

Upon graduating, I was excited to join the Missouri Department of Conservation as a forest pest surveyor. Using a GIS grid system, a government-lent vehicle, and some 350 cardboard traps, I independently monitored all of Saint Louis County for invasive spongy moths. This position required frequent and professional communication with supervisors, colleagues, landowners, and members of the public. When cross-training opportunities were presented, I contributed to projects in other branches of the department, gaining experience in forestry, invasive beetle management, outreach, and education. My summer with MDC strengthened my grasp of independent field logistics and cemented my interest in conservation, entomology, and wildlife monitoring.

Currently, I am in my second season ski instructing for Snowshoe Mountain in West Virginia. I teach skiing to people of various ages, backgrounds, and skill levels; it is my responsibility to facilitate a safe, informative, and fun learning experience for all my kids and clients. In the past, I have instructed swimming, trail-building, canoeing, and winter camping. I find it extremely rewarding to be able to support the development of young people outdoors.

I wish to continue my academic career at VCU because of its research possibilities, robust ecological facilities, extracurricular opportunities, and dedication to a supportive and diverse learning environment. Though my academic and professional background thus far involves biological surveying, scientific communication, and outdoor recreation, I am looking to branch toward forestry and restoration in future research endeavors. I am excited by the Rice Rivers Center and the potential to continue studying riparian ecosystems. Additionally, I hope to gain knowledge and experience in restoration work.

My research goals are to better understand scientific processes that impact the management of forest and wetland communities. I hope to use my thesis as an opportunity to explore forest disturbances, carbon sequestration, or restoration impacts. I am eager to refine a focused research objective that encapsulates these goals while taking advantage of resources within the VCU biology department.

Regarding VCU faculty, I have interviewed with Dr. Chris Gough and discussed the possibility of joining his lab. Current lab members have shared with me that Gough is an engaged mentor, there is a positive and down-to-earth lab culture, and that research experiences at VCU have been largely positive. From reaching out to Dr. Derek Johnson and Dr. James Vonesh, I received helpful information regarding funding, program outcomes, and application processes.

A master's in biology would enable me to advance my career in conservation and contribute to important ecological research. Eventually, I hope to be able to offer support and mentorship in a scientific setting. I am interested in roles related to land restoration, conservation management, and teaching. I look forward to the possibility of developing as both a scientist and a student at VCU.