

The natural world has captured my interest for almost as long as I can remember. As a child on family camping trips, I asked countless questions about the identities of the myriad organisms I saw. My father had a mini-library of field guides, which provided many of the answers I sought and increased my awareness of the world's seemingly endless biodiversity. The best field guides covered bird identification, which perhaps was the reason for my eventual concentration on Aves. However, I fear those field guides may have created an obsession as well; not only did the books identify species seen on family trips, they also exposed me to hundreds of new species I might find on trips to other regions. I developed an intense desire to seek out these new species—a desire that continues to this day. My travels in search of new birds have provided some of my life's most exciting moments, including watching 500,000 raptors migrate overhead in a single day in Veracruz and hitching a ride in the bed of a banana truck in Ecuador. Still, I find that my inquisitive mind wants to know answers to questions larger than identification. Why do the Chiapas-Guatemala highlands host the many endemic taxa that prompted my visit there? Why do the Black Hills support isolated populations or subspecies of some Rocky Mountain taxa but not others? I have asked myself evolutionary questions like these throughout my travels, and it is my desire to find the answers that has brought me to the University of Chicago (U of C).

In efforts to support my passion, I sought out professional experiences that would meld my personal and academic interests with the need for a paycheck. My experiences were dominated by five consecutive summers performing ecological field research on birds. I spent four seasons in the Black Hills, conducting surveys for the Rocky Mountain Bird Observatory to determine habitat use and population densities. The other summer was spent in southern Nevada studying endangered Southwestern willow flycatchers for SWCA Environmental Consultants. For three years, I served as the field crew leader responsible for training and supervising the projects' field technicians. These positions helped me gain extensive knowledge concerning field techniques, and I contributed to study design in several instances. The research also helped me formulate ecological and evolutionary questions that could be the focus of future work in the regions.

Recognizing that the questions that often piqued my interest cannot be answered by field work alone, I sought further work experience in a genetic laboratory to learn DNA techniques. To that end, I was fortunate to be able to work for Dr. Shannon Hackett in The Field Museum's Pritzker Laboratory for Molecular Systematics and Evolution during the 2006 summer. I assisted her work on the NSF's Assembling the Tree of Life initiative, which is responsible for determining genetic relationships and the basal evolution of the world's birds. I learned valuable techniques—such as PCR work, cycle sequencing, and sequence editing—that are necessary for the research I will conduct. I feel these professional experiences in the field and laboratory have prepared and inspired me to pursue advanced research in phylogenetics and evolution.

In addition to these professional experiences, several memorable educational experiences at Texas A&M University provided me further inspiration for personal study. Field entomology and mammalogy were two undergraduate classes by which I felt primarily influenced. In field entomology, I designed and implemented a semester-long research project concerning Brazos County butterflies. As my first real opportunity to conduct extensive work of my own design, this project fueled my desire to pursue further research to answer my own questions about the natural world. In mammalogy, Dr. Rodney Honeycutt opened my eyes to phylogenetic work and research on broad evolutionary questions. The material I learned in his class played a very important role in helping me determine what type of graduate work I wished to follow. Other educational inspirations included attendance at academic conferences, including Texas Wildlife Society meetings and the North American Ornithological Conference.

Just as I greatly appreciate the benefits I have received from these life experiences, I find immense pleasure in passing on these benefits to others. In the birding world, I volunteer as a field trip leader at various conventions, and I have written three articles on bird identification. These opportunities allow me to teach others not only about bird identification and field skills but also about the science of ornithology. My goal is often to nudge people in the direction of seeing birds as an important but small part of the greater picture of the natural world.

During my time at A&M, I grew to appreciate even more the importance of academic contributions to public knowledge and community outreach. I initiated or coordinated several community outreach events to make such contributions. My favorite experience was coordinating the Brazos Valley BioBlitz in 2005. This event brings together many members of the A&M community to teach local families about local biodiversity and conservation concerns. I feel that one of the most pressing issues concerning the future of natural sciences is a general lack of interest in and exposure to the natural world in many of today's children. BioBlitz provides the perfect opportunity to engage them with nature hikes and information tables on local organisms. Captivating the minds of almost 50 children during a night hike when a pair of Barred Owls called just above our heads was one of the most fulfilling moments of my life. Realizing the value of BioBlitz for increasing public appreciation of nature and for fostering future natural scientists, I promoted and expanded the event as much as possible, resulting in a turnout that doubled any previous BioBlitz attendance. BioBlitz volunteers not only taught local families about nature, but they worked with city officials to conduct biodiversity surveys in a local park. The city used data from these surveys to make intelligent conservation decisions, further illuminating to me how applications of natural science research can benefit society.

In addition to outreach, as an officer in the campus chapters of the Society for Conservation Biology and The Wildlife Society, I provided classmates with opportunities for professional development. I worked with students, professors, and local citizens to conduct workshops on relevant field skills for researchers. A bird banding workshop proved quite popular, and students enjoyed learning about mammal tracking and radio telemetry at other workshops. My field jobs benefited me immensely, and I informed students of similar chances through presentations so that they might receive the same benefits. It has been a sincere joy for me to aid my local community and fellow students, and I will continue this philosophy at the U of C.

During my time in Chicago, I will participate in programs in which I can further apply my scientific interests and experiences to benefit society. Particularly, I will join the student organizations Save Our Science and Bio Outreach. The mission of these groups is to promote an understanding of science among politicians, schoolchildren, and the general public. The U of C also offers a Certificate in University Teaching program in which I am very interested. I believe participation in this program will be important for me as I aspire to teach and continue research at the university level. This program will hone my teaching practices and will give me excellent preparation for my career. Additionally, I have already joined local birding organizations and am firmly integrated into the scientific and educational programs at The Field Museum.

I believe my career and research goals would receive a vital jumpstart from an NSF fellowship. An NSF fellowship would allow me greater freedom from various time constraints. Without the need to subsidize my research finances income with teaching assistantships or possible summer work, I will have more time to dedicate to research or outreach. Most importantly, it will afford me a better opportunity to travel to potential research sites for critical field work, rather than having to rely only on existing collections. Being able to focus on these pursuits without worrying about income will help me achieve my goals of conducting innovative research and teaching others about it.