

After graduating from high school in 2005 it wouldn't be until eight years later that I would again walk across the stage to receive a degree. **Growing up, I had minimal exposure to college**, what it entailed, degrees offered, etc. and therefore I waited three years after high school before finally pursuing higher education. However, as the first person in my family to graduate from college it made receiving my degree that much more meaningful.

When I was very young, I wanted to be a veterinarian. When I returned to college years after high school I returned to my childhood dream of vet school. I attended a community college in Florida taking courses that would allow me entrance to not only a university, but also a vet school. Here, I quickly appreciated what community college had to offer; a diverse set of students, a fairly low-cost education, and plenty of opportunities to make a difference. Retrospectively, any college **experience is what you make it to be**. During my time at this school, I held two vice-presidential positions and another officer position in my campus' Student Government and Honors College Student Associations. I enjoyed holding multiple leadership positions and held a sense of pride during these terms. Through activities, events and workshops, especially within the honors program, I was able to relay information and opportunities to students who, due to either disregard or apathy, weren't aware of the funding and resources available to them. To this day I seem to have a knack for finding and obtaining resources and information when others cannot. Because of the experiences I had in community college, I wouldn't change my situation for *anything*. If it wasn't for this I may not be where I am today; loving where my degrees have led me and being absolutely captivated by ethology and ecology.

After obtaining my A.A. from Valencia I transferred to the University of Florida to continue my education. My first year at UF (as a junior) can be described only as **tumultuous**. Taking mostly pre-vet courses, I barely passed by while working upwards of 20 hours a week. After a year of this constant battle with wanting vet school admission but failing or performing badly in the required courses, I reluctantly let the dream go. It wouldn't be until later that I realized my poor grades in pre-vet courses were directly related to the lack of passion I had for the generic science classes required. I transferred to Wildlife Ecology and was immediately engrossed due to the departmental courses that called to my true passion.

I soon landed a position in a newly hired invasion ecologist's lab as a research technician and was **introduced to a novel setting: academic research**. Working under this new faculty member, I assisted in setting up his lab, and beginning his first long-term project within UF studying the effects of shading, drought, community structure, and fire on cogongrass (results not published). I assisted with determining sprouting rates, planting, caring for, and transplanting each study species as well as general upkeep up of study sites.

One of the first courses in my new major, a weeklong course in Coastal Disturbance Ecology, sparked a new passion for fieldwork that would have a transformative influence on my future study. A large part of this course was a group project of which I worked with one other person in designing and collecting, analyzing and presenting data. Together, we decided to study how human activity on beaches affects the flushing distances of two species, Willet (*Catoptrophorus semipalmatus*) and Sanderling (*Calidris alba*). We collected our measurements just after sunrise and before sunset of the two-day period; one person walked at a constant rate toward a group containing either one or both of the study species, while the other recorded the distance at which the first bird of either species flushed. We collected data on two islands: one private, very low-impact human disturbance, the other a public, moderate level of human disturbance. We found no differences between the two islands (not surprisingly since our sample sizes were low and we had no replication), but looking back, if each observation was treated as

an independent sample, I believe we might have found evidence that the higher human disturbance island birds had lower flushing distances, possibly insinuating habituation to human traffic. Although our design was nowhere near rigorous and our results insignificant, I then appreciated the effects humans can have on birds, and wildlife in general. I fell in love with fieldwork and from then on I was on the look out for opportunities to assist with fieldwork, no matter how temporary or monotonous.

Once I knew the plethora of opportunities that were available I took charge of my experiences by volunteering on multiple graduate and state-agency projects in which I had varying levels of involvement including capture-mark-recapturing of Florida mice (*Peromyscus floridanus*), a comparative study of exploratory behaviors of seven avian species, RCW (*Picoides borealis*) translocations, banding and re-sighting, and identifying insect and louse specimens taken from lowland manakin and flycatches in Peru. Later, I approached a biology student who was once my Avian Biology T.A. with an idea for my own research; I was persuaded into volunteering to assist with his research project instead. The data for his research were voice recordings of foraging observation that needed to be transcribed and analyzed. Using pre-determined codes, I transcribed approximately 300 hours worth of foraging observations, asking questions along the way about species behavior, what each behavior implicated, etc. Dr. Martinez was recently awarded his PhD and will be analyzing this set of data soon, attempting to describe how foraging rates vary in mixed-species foraging flocks in a lowland forest in Peru.

During the summer before my final year as an undergraduate I was lucky enough to obtain a federal work-study position in the ornithology collection at the Florida Museum of Natural History as a **curatorial assistant**. Having access to observe and work with more than 60,000 specimens including skins, skeletons, fossils, nests and eggs, I was overwhelmed by the sheer volume of information in one place. My duties were to assist in the current and future endeavors of researchers by preparing, measuring and maintaining specimens and specimen records. I was fortunate enough to work on a special project, integrating a private egg collection (more than 600 clutches) into the permanent collection. Most of the clutches were not catalogued correctly; using references, I was able to independently identify approximately 60% of the clutches before handing the remainder of the project over the collection manager.

While enrolled in an ethology course under Dr. Sieving, I took advantage of an optional assignment: she offered students the chance to work with herself or graduate students in her lab on either established or novel research projects. Little did I know the project I signed up for would turn out to be a yearlong endeavor and a highly experiential opportunity to complete an undergraduate thesis. Our project addresses whether the actual and perceived landscapes of risk of small forest birds align. Together, we determined the best way to answer this question and created a protocol using: (1) playbacks of a distressed Tufted Titmouse (*Parus bicolor*) to determine the **actual risk of predation through predator response** and (2) the trill of an Eastern Screech-owl (*Megascops asio*) to determine the **perceived risk through prey response**. I collected the data for this project and maintained a close relationship with my advisor during the process. Using generalized linear mixed modeling our data shows that prey birds *do accurately perceive risk of predation*. This project has also given us a new way to efficiently detect birds of prey. At different stages of this project I have presented two posters and one paper. Here, I received both critical and positive feedback from several ornithologists and ecologists from the US and Latin America. Due in large part to this project I have gained experience in writing proposals, applying for, and managing grants and awards.

After beginning this project, I was given the opportunity to also work as a field technician in the Sieving avian ecology lab. Here, I assisted in managing the lab and collected data when needed. In the lab I also managed banding data, and worked with Dr. Sieving to obtain and maintain federal banding permits. In the field, I collected data for a project proposing regional differences between Florida and Tennessee Parid vocalization complexities at feeders and in natural settings. I collected recordings using protocol established by the project's CO-PI (results unknown). While working on this project I realized the importance of and difficulties in communicating and collaborating with researchers outside one's own institution.

Further enhancing my appreciation for collaboration and outreach was my position as a banding technician for the [Neighborhood Nestwatch](#) program (Smithsonian). This project is geared towards enhancing public knowledge and appreciation of backyard birds. As an intern on this project, my teammates and I were charged with the task of recruiting new participants, visiting their homes, mist-netting, banding and measuring native birds, all while explaining the basic biology of and the importance of their backyard wildlife. We also taught participants how to identify and re-sight their birds and how to search for nests. During this project I accumulated more than 700 net hours, banded more than 200 birds, and polished my banding and measuring skills. As a team, we performed outreach visits, including a memorable one at Girls' Place (a non-profit daytime summer camp for at-risk girls). At Girls' Place we gave banding demonstrations, taught the girls how to use binoculars, ID birds, and even how to "pish". More importantly, we allayed the fears of wildlife in many of the older girls. Giving these girls the experience of seeing and interacting with scientists will hopefully have had an impact on the range of aspirations they carry.

During this time I also worked as a GIS/Avian Ecology Intern for the Florida Fish and Wildlife Research Institute under the region's spatial ecologist and upland non-game bird leader to support further analysis of Southeastern American Kestrel (*Falco sparverius*) habitat use. I completed habitat accuracy assessments of our study area and modified land cover layers to reflect actual Kestrel habitat availability to compare areas surrounding established nestboxes to random site habitat. Our main findings were that current land cover classification maps are not representative of the landscape and these GIS land cover layers should be altered before analyzing any Kestrel nestbox data.

As an aspiring professor of conservation ecology, an NSF-GRF will allow me the opportunity to pursue a PhD. I have come to realize that there is a plethora of information to be explored, and my job, as a scientist, is to fill the gaps that society demands. After acquiring a PhD and pursuing a career in academia, I will always be a student, and will be expected by both my peers and the public to perform necessary, rigorous science. Working as a post-secondary teacher and mentor, I hope to inspire those who come to me for information or guidance, and I expect this aspect of the career to be the most fulfilling; knowing, or hoping, that I have influenced the life goals of someone else through ecology and education.

I didn't know it was possible to make a living by carrying out "science projects" as a career until I made it to UF. Because I somewhat regret being ignorant of these facts, **I aim to do all I can to ensure that children and young adults in Gainesville and beyond are aware of the options available to them**, whether it be college, careers in science, or the ability to enjoy nature. If awarded an NSF-GRF, I will also explore the possibility of working with wildlife biologists in France, through the NSF-GROW program, where House Sparrow declines have also been documented.