MAKING A DIFFERENCE WITH A STEM CAREER

Sarah Huebner is a senior at UNI. Her years at UNI have been filled with building lifelong memories and taking advantage of great opportunities. Sarah is a Biology, Ecology, and Evolution major. “I was working in research administration in Kansas City, managing grant projects for researchers. I was fascinated by the research projects and found myself continually drawn to the labs. I am especially interested in life in all its forms, so I decided to pursue a degree in Biology with the intent to do research of my own. I chose the Ecology and Evolution track because I am passionate about wildlife conservation and restoration. We have a lot of wonderful organisms on this planet, and it’s up to us to ensure that they are here for many centuries to come so that people will always be able to experience the joy and awe that only nature can provide.”

Sarah chose UNI for its large university resources with the feel of a small school. “The faculty are top-notch and dedicated to training us to be the best scientists possible. Their doors are always open and they are very receptive to questions and comments in and out of class. There are also a lot of great opportunities to conduct research as an undergraduate. I am currently working in the lab of Dr. Jim Demastes and Dr. Theresa Spradling, assisting with their research on pocket gophers from New Mexico and the chewing lice found on the gophers. We are studying the interactions of these species as they evolve together, as well as the effect of range shift on the genetic diversity of populations. This research has major conservation implications, as it may give us some insight into how well populations lacking in diversity are able to adapt to changing environmental conditions.”

This summer, as part of UNI’s Summer Undergraduate Research Program, Sarah will be working in the lab of Dr. Kenneth Elgersma. They will conduct several projects pertaining to carbon fixing of native grasses in Iowa, the impact of native grasses on the populations of honey bees and native bees, and examining whether some native grasses could be effective biofuel producers.

Ecology, Evolution, and the Nature of Science taught by Dr. Demastes, has been Sarah’s favorite major course. “The class is primarily discussion-based, so we read books and articles and then debated the points of each in class. It was a great way to practice our critical thinking skills and train our minds to apply the scientific method to a wide variety of topics.”

In the future Sarah would like to work for the U.S. Forest Service or a state agency as a conservation biologist with an emphasis on restoration. “I intend to conduct additional research on the effects of climate change on populations of animals, which will hopefully lead to a better understanding of which management practices are effective and identifying additional ways that humans can mitigate our impact on wildlife.”

When Sarah finds some free time, she enjoys reading. She has been known to devour an entire book in just a few hours. Sarah also loves to be outdoors: camping, hiking, kayaking, and having bonfires with friends. She attends a lot of music concerts, everything from bluegrass to rock and enjoys watching football; the Kansas City Chiefs and, of course, the Panthers.

Her favorite memory so far at UNI had been her experience with an escaped alligator from the reptile lab. “The day I showed up for a Biology lab and was informed by the instructor “Not to worry, but there’s an alligator trapped in the baseboard of the walls”. Rather than being afraid, the whole class of Biology majors was like
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-Sarah Huebner

“Cool! Can we see it?” Turns out it had made an escape from the reptile lab and had to be blocked into a small space until classes concluded for the day and it could be returned to its home. No students or alligators were harmed, but we did have a good laugh about our fairly uncommon reaction.

On top of going to school Sarah also holds two jobs and finds time to volunteer at the Black Hawk Wildlife Rehabilitation Project. “I work part-time at John Deere’s Product Engineering Center. I analyze data from various tests run on the oils involved with making tractors run, and provide the results to the group of engineers responsible for those products. I also serve as a STEM Ambassador for UNI and I volunteer at the Black Hawk Wildlife Rehabilitation Project, which feels more like fun to me than work. We take in animals (mostly babies) that have been wounded or abandoned, nurse them back to health, and then release them into the wild. I’ve gotten to work with raccoons, squirrels, owls, ducks, and deer so far, which has been a fun experience.”

Her advice to a future panther, “If you have a natural curiosity about how things work, a STEM major is the right choice for you. Science, Technology, Engineering, and Mathematics all give you the opportunity to discover and create things no one has ever done before. The work of each subsequent generation builds on the generations preceding it, giving us an ever-expanding understanding of the world, the cosmos, and our place in it. If you want to feel like you are making a difference, you should consider a STEM career. UNI is a very comfortable and progressive place to study. I am proud of how inclusive and welcoming our student body and faculty are. You will never be made to feel out of place here. You can get a great education while making lifelong friends and participating in any number of activities and clubs available to you.”

STEM at UNI and STEM Education at UNI supports the Vision & Mission of UNI by engaging UNI students, faculty, & staff in STEM campus programs & outreach for K12 students and educators.

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Sarah and her dog, Delilah, in St. Michael, Alaska