

**ENS Stephanie Bridges  
JrCOSTEP Summer 2012  
Western Carolina University  
Colorado River Service Unit  
Parker, AZ**



My name is Stephanie Bridges and I am a rising senior at Western Carolina University studying Environmental Health. I participated in the JRCOSTEP program during the summer of 2012 in Parker, Arizona at the Colorado River Service Unit. My preceptor was LT. Sarah Snyder REHS, who serves five tribes around the Western part of Arizona including: Chemehuevi, Colorado River Indian Tribes (CRIT), Fort Mojave, Hualapai, and Havasupai. The main project that I undertook for the summer was to make a training video on mosquito identification and how to use a RAMP reader, a reliable, sensitive and rapid platform system used to detect West Nile Virus (WNV) in mosquitos. While this was my main project for the summer mosquitoes were not all that I focused on. I learned how to do a variety of different surveys and inspections, conduct vector surveillance and control, research, technical report writing, community programs development and implementation, and how tribal communities function.

Initially, I was very excited about moving to Arizona and then as the time crept closer I began to feel the terror of moving across the country by myself. As time crept on and I had not found a place to live and my orders got pushed back. I began to get nervous, but Sarah assured me that it would all work out in the end. Even though I was two weeks late getting to my assignment, when I finally made it I could tell it was going to be a fun summer. On my second day we left on travel and I barely had time to sit still until the end. While it was a very busy summer and because our office was short staffed, I was able to cram in more experiences. I learned more about the Environmental Health profession in two and a half months at this internship than in my three years of school.



In the beginning I was very timid at taking initiative in doing surveys and speaking with the employees and managers but as time wore on I became more and more comfortable. At first, I took notes for Sarah and towards the end she was taking notes with me and pointing out only a few things that I would miss. I also began to conquer my fear of public speaking by teaching food handler's classes on my own and leading activities when we had larger groups that had to be split up during trainings. I also become very familiar with report writing and the various codes and regulations we referenced and cited. Before this internship I was somewhat familiar with the FDA Food Code but by the end of the

summer I knew it like the back of my hand. I also learned about the NFPA Life Safety Code, and the Caring for Our Children: Health and Safety Standards(reference specific to childcare settings). Being the sanitarian in many of the small tribes can also lead to one being called upon to be knowledgeable in building and fire inspection which provided me with an array of more knowledge than those in internships focusing on only one part of Environmental Health. I also became familiar with doing pool surveys, jails, daycares, schools, markets, hotels, and many others.

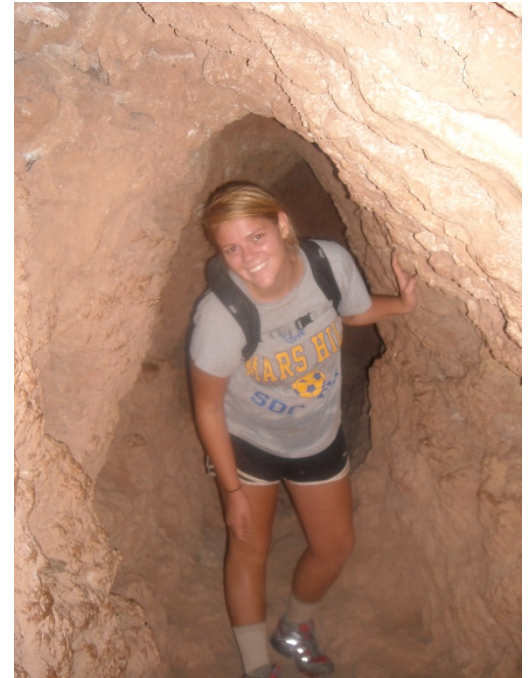
My main project was making a training video which focused on mosquito species identification and how to test for West Nile virus using a RAMP reader. Over the summer we trapped mosquitoes in many of our tribal communities and I became very familiar with running the equipment. However, I needed to be able to identify the mosquitoes for my training video. About four weeks before I was leaving, we finally received our microscope and soon I learned that we needed help from an expert. After consulting with an entomologist from Yuma we came back and after much practice began to effectively identify the various species of mosquitoes. This task was important because of some mosquitoes we collected that tested positive for WNV in one of our communities. We discovered we had *Culex tarsalis*, a mosquito that is very capable of spreading the virus to humans and horses particularly in this region. We knew that the virus would continue to spread if we did not treat using both adulticide and larvicide. Working with the Tribal Environmental Protection Office we were able to set up a meeting with the Tribal Council and help them determine the proper equipment and treatment actions needed to control the vector.

Another aspect of this job is, learning how to properly and formally address tribal councils, something that Sarah has become familiar with from her years of experience. In order to get approval from council to support the purchase of a fogger and pesticides, we had to go in with exactly what was needed such as various purchasing options including prices, and why treatment was important. I spent hours on the phone and internet researching products, equipment, and insecticides before heading to the Tribal Council meeting and purposing what we needed. This was very intimidating but in the end they approved our request without a quorum because the positive samples were taken near a very large neighborhood and the number of positives had been increasing.

I then resumed work on the video, which turned out to be a much larger and harder project than any of us expected. Learning to use a camera, how to shoot, how to upload and work the film program to over lay, cut, and/or synchronize scenes took a lot of time and effort.. In the end it was finished the day before I presented it at the Phoenix Area COSTEP Symposium, and it got the point across and covered all the aspects of the identification and testing process. With the recent budget cuts, travel restrictions, remote employee locations, video trainings maybe the new way of getting information to new employees and new users of equipment. Not to mention, the amount of time and materials they can save by only one person finding out all that can go wrong and visually showing/informing others on how to not make the same mistakes.

The diversity of the tribes served showed me how you have to be adaptable and expect the unexpected, not to mention the time change to 'Indian Time'. My favorite tribe to visit was the Havsupai in Supai, Arizona or at the bottom of the Grand Canyon. Their village is reachable only by foot, mule, or helicopter and they are some of the nicest people I met during this internship. Visiting this tribe is the one thing that makes the Parker duty station unique. I was able to visit there twice during the summer and loved every minute of it. While many tribes still have bits and pieces of tradition, these people live the way they have for centuries. While there are many modern conveniences that have crept into the village, foot and horse are the usual modes of travel. Many of them follow the traditional ways of their ancestors by farming, and still speak their native language when communicating with each other. It is a beautiful place full of beautiful people and has become a popular tourist destination because of the waterfalls but the real beauty is in the village.

The JRCOSTEP experience has a very broad learning curve, especially in the field offices. I learned about branches of Environmental Health that I did not even know existed. Learning life in a professional setting was also very new to me, and I felt like my rank was beneath many but they treated me as an equal, listening to my ideas and being receptive to my many questions. In my college classes I often struggle to pay attention and retain information, however, this summer I felt like a sponge because I could relate the information to the things



I saw and the people it would help. While I was only there for a short time I can still see the progress the tribes are making from Sarah telling me about the problems of the past, and see how much of an impact IHS has on the tribes. The JRCOSTEP is an opportunity that is well worth the paperwork, and the scariness of moving to rural places. The coordinators do an excellent job matching students and preceptors making the summers not only informational but also enjoyable. I would recommend this internship to anyone!