

**ENS Nikita Orndorff**  
**JRCOSTEP Summer 2018**  
**University of Wisconsin-Eau Claire**  
**Ashland Field Office**  
**Ashland, Wisconsin**

My 2018 summer was spent working on a Bachelor of Science in Environmental Public Health while simultaneously participating in a JRCOSTEP experience in Northwestern Wisconsin. I heard about the JRCOSTEP opportunity from a classmate soon after finding my home in the Environmental Public Health program at the University of Wisconsin-Eau Claire. I was curious about the prospect of becoming a JRCOSTEP commissioned officer and asked my classmate, who had done his JRCOSTEP the previous summer, to invite his former colleagues, CAPT Tim Duffy and LTJG Shelby Foerg, to share some details with our Student National Environmental Health Association club on campus. I was drawn to the JRCOSTEP opportunity because of its wide-ranging coverage of various areas of Environmental Health. The JRCOSTEP encompassed most areas that were emphasized throughout my four years of undergrad, from food safety and municipal solid waste to vector surveillance and healthcare facility inspections.



Collecting larval samples from a transfer station

On my first day as a JRCOSTEP I was provided a succinct work plan that included the scope of activities that I was to complete over the summer. Apart from food protection, vector surveillance, and community environmental health projects, I was told I'd have the opportunity to accompany another field office on larger casino inspections in Michigan and Indiana. In addition to our regular inspections we conducted inspections alongside Environmental Engineers, giving me the chance to see what clinic inspections and operation and maintenance surveys of solid waste facilities looked like.

With the help of the Lac Courte Oreilles, transfer station staff we completed a solid waste survey, which was a much dirtier task than the casino and restaurant inspections that I was used to. Ultimately the solid waste survey allowed us to glean insight into the shortcomings of the resident's recycling practices and how to better incentivize recycling.

A project that I was surprised that I'd be involved with was a vector surveillance program. I had experience with a very similar program from my internship at an environmental health laboratory the previous summer so I was excited to further some of my identification skills and cultivate more knowledge about mosquitoes and ticks and their associated diseases. We paired up with Brad Tucker, Entomologist, University of Wisconsin-Madison, on several occasions to set mosquito traps near diagnosed cases of Jamestown Canyon virus, a mosquito-borne disease with symptoms similar to those of La Crosse encephalitis. The majority of people

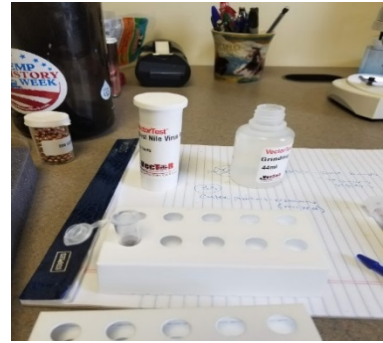


Conducting a solid waste survey at Lac Courte Oreilles

who acquire the virus are asymptomatic, few develop flu-like symptoms, and even fewer experience inflammation of the brain and surrounding tissues. It was Brad's goal to collect container breeding and vernal pool breeding mosquitoes to complete vector competence tests in hopes of identifying the mosquito that transmits Jamestown Canyon virus in this part of the United States.

During my time at the Ashland field office, I developed as a professional more than I could have ever imagined. My preceptor allowed me a freedom that my previous internship hadn't, permitting me to grow a greater sense of independence and on-the-job confidence. Not only did this experience cover areas that I had learned about in school, but I was able to experience parts of the environmental health field I hadn't been exposed to before such as casino inspections and West Nile virus testing, and assisting in providing food handler and ServSafe training to tribes. The majority of my days were spent traveling to different tribes to conduct routine inspections of food service establishments, recreational areas, healthcare facilities, water/wastewater facilities, and buildings in general. I became very familiar with the 2013 FDA Food Code and the OSHA 1910 standards, areas that had only been briefly touched on in my undergrad courses. Eventually, I became comfortable enough to conduct inspections by myself. Although my time in Ashland was short, it was packed with invaluable experiences and information.

I had the opportunity to apply and develop the skills I learned throughout my undergrad and previous internship. Additionally, working within the Native American community gave me the chance to learn about cultural nuance as well as some basic beliefs, significance of traditional ceremonies, and fundamentals of Native American medicine. Initially, I was apprehensive about moving to such a rural community but ultimately I was happy to have made the move as it allowed me to spend a lot of time outdoors fishing, camping, kayaking and biking.



West Nile virus, St. Louis encephalitis, and Eastern Equine encephalitis assays



Kayaking the Apostle Islands