I had the opportunity to work as an intern for the Washington State Department of Transportation Headquarters Office in the Environmental Services Office this year. The internship's purpose was to analyze photos of wildlife taken from motion-triggered cameras positioned under selected bridges in our highway system. I was skeptical at first, being confined to a cubicle all day pouring over photos and entering the data into spreadsheets, but to broaden my career options, I needed to make the transition from a data collector to a data analyzer. The prospect of a new horizon excited me and that enthusiasm ultimately landed me the internship.

Transitioning from doing construction and field work to working in an office setting was by far the most challenging aspect of the internship for me. I felt like a caged animal needing to tear down my cubicle walls, but as fall faded and the days became shorter, colder, and wetter, I began to appreciate my small world. After all, it's better than digging ditches in the rain. I did manage to escape the confines of the office a few days a month to service some of the cameras.

As the backlog of pictures began to dwindle, questions emerged that I could answer with newly organized data. I cataloged the time stamp recorded on every picture as well as date and temperature. The question I focused on was – "Do megafauna species exhibit crepuscular (preferring twilight hours) behavior near our highway system's bridges and culverts?" It is a long held theory that animals, particularly ungulates, are most active during twilight times. I set out to quantify just how close peak activity periods are to sunrise and sunset.

I used 6 sites ranging from Spokane to the coast and compared each detection at the sites to sunrise and sunset times for that day. I applied Chi Squared tests to each site, comparing observed data (detection time) to expected data (sunrise and sunset times). Most of my sites suffered from a lack of data and another statistical test was needed. I am currently working with the G-adjusted test, which is similar to a Chi Squared test but accounts for the limited data, however, one site did have enough data to do the Chi Squared test. Deadman Creek in Spokane.

WSDOT, Washington Fish and Wildlife, and local tribes are teaming up to fix culverts that create fish passage barriers. US 2 at Deadman Creek was one of those that finished construction last summer. Crews installed a large arch culvert so Deadman Creek could flow unobstructed under the highway, but unintended benefits are emerging from the culvert installation. Over the 9 months of monitoring at this site, over 1500 white tail deer have used the culvert to pass under the highway. It is by far the most successful crossing structure that I monitor. Unfortunately, one of the cameras was stolen this week.

So if you see a motion triggered camera in a green telephone box under a highway or culvert, please don't steal it. Instead, wave and say "hi" … but please, please, please don't pee facing it!

P.S. They are crepuscular!

"Science is the painstaking demonstration of the obvious" – Chin Leo