

## Internship

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Over the past few months, I had the opportunity to complete an internship at Bear Creek Lake State Park. The overall goal of this experience was to learn more about wildlife conservation and recreation. In order to do so, I participated and assisted in some of the activities held by the park, as well as conducted research.

The first park activity I participated in was a kayak tour around the lake and creeks. Through this I first learned about the park's history, as well as some general information about the wildlife that inhabit it. One of the organisms I learned about was bryozoa. They are rather important creatures that help to exhibit the overall health of the lake and are often used to determine or measure water quality without any formal measurements or testing. This can also be done via macroinvertebrates. The presence and abundance of different macroinvertebrates can indicate different factors that go into water quality. As an example, dragonfly nymphs require good water quality and if they are present, especially in large numbers, that is a good sign for the overall health of that water system. In addition to learning about visible signs of water quality, I also later conducted an official water quality test. This was done through measuring the levels of pH, nitrogen, phosphorus, and oxygen within the water. All variables were found to be within appropriate ranges and the overall water quality was good.

The next park event I participated in was a presentation for Crewe Middle School. Some of the students took a field trip to the park and learned about turtles, snakes, and some food resources in the area. I observed most of this event and learned with the students about some of the native turtles and snakes in the area (i.e. box turtles). I assisted and handled the demonstration corn snake, Negini, during part of the presentation. At a later date, another middle school came to visit the park. This time, they learned about watersheds and erosion. I participated in a mini hike around the lake, where the students got to see, first hand, some of

the effects and signs of erosion. They also learned about some of the local vegetation and how to spot signs of wildlife. These events showed me how important it is to inform others, especially children, about nature and the animals within it. In order to keep the ecosystem healthy, we must first understand how it functions and why it's even important.

As for the research conducted, most of it was simply to identify and understand some of the animals that inhabit the area. In order to understand how to conserve and protect animals, you must first learn about their needs, their environment, and their significance to the area. To do this, I first learned how to do a forage assessment. It is key to know the state of the land in which you are studying and what animals are most likely to be there. This is done through observing the types of trees present and their abundance, as well as the age of the forest, height of the mid-story, density, ground coverage, and distance from water. All of these things are key factors for animals and their ability to survive in their environment.

After learning how to conduct forage assessments on my own, I moved on to placing cameras around the park in search of specific animals. The first camera was placed by water and an active beaver site, with that animals being the one of focus. The second camera was placed in a completely different area, in an attempt to capture images of deer. Over several weeks, the cameras were checked and then moved to different locations in an attempt to find the same animals. Unfortunately, camera one was never able to capture a beaver. It was as if they had disappeared from the area. It did however capture many racoons that used the dam as their own personal bridge, as well as a bobcat that used it in a similar manner once. A few deer, birds, and squirrels were also captured in that general area. The second camera only caught a few deer, but did have some interesting animals that made an appearance. A cat was seen a few times on that one, as well as some coyotes, racoons, and squirrels.

At the very end, both cameras were moved to a different area where a bear had previously been spotted. We attempted to bait one using a scent based fox lure. While waiting, I read up on bears and learned about how to live with them appropriately. Most of the information was stuff I had already learned, as I grew up in an area with lots of bears; however, it was still important information and a good read. Going into it, I was aware actually capturing a bear was unlikely and unfortunately it was unsuccessful.

In sum, I learned a great deal during my time at Bear Creek Lake State Park. I learned how to assess different habitats and identify the animals that may inhabit it, how to tell the quality of water, how to identify different species of snakes and turtles, and how to help conserve and protect animals based on their needs and their environment. We have the ability to greatly impact animals and the environment, whether that be positive or negative. It's our responsibility to help protect and maintain it.