

October 3, 2025 - Journal #6 - Erik Vega

This week deviated from the norm quite a bit, but I definitely enjoyed getting to explore my individual research project and trying to collect data out in the field. Instead of being greeted by David this week, Brad was sitting in his usual spot. David was unfortunately sick, so Brad would be leading the reading discussion instead. Today's discussion was on the tragic passing of Jane Goodall, a true pioneer in field biology and conservation work. The assigned reading was her obituary, posted by the New York Times. While reading the obituary, I was amazed just how much she observed about chimpanzee behaviors and social structures. But more importantly, by doing so, she set the standard of showing more emotion and passion in animal research. She was criticized for "humanizing" the animals she studied by giving them names and even taking note of their personalities. Before this, studying animals involved giving them specific numbers and many experts advised not making emotional attachments to subjects. But upon observing the complex social behaviors of chimpanzees and their use of tools, Goodall had every right to give them names. Anthropomorphizing animals is often seen as a bad thing, but these chimpanzees were seen kissing, embracing, holding hands, and patting each other on the back. Contrary to popular belief, we aren't much different than other animals on Earth. For example, these chimps communicate with each other in very similar ways that us humans do. I think that if more people had this mindset, the environment wouldn't be given such a bad rap.

Brad spoke to us for a little over an hour on both the assigned reading and some of his personal experiences and stories. He really homed in on the importance of asking meaningful questions. Jane Goodall dropped everything in her life to go study these chimps in Africa at only 23 years old, but why? What was she thinking? What were her motivations? She changed the world of science basically all on her own, despite having everything going against her. Her

ambition and go-getter attitude met with her actions of observing chimpanzees for days on end in one place was an interesting juxtaposition of her personality. Nevertheless, Brad's talk with us was an inspiration to write a meaningful life story by being *different*. Stand out as much as possible and actually learn things from your experiences.

Anna and Morgan had a very short presentation for us afterwards, which just went over weather and game camera highlights. The weather for the week was mostly in the mid 80s, with cooler mornings. The stream gauge could not be obtained due to the recent government shutdown. Game camera highlights included Opposums and a few bucks shedding their antlers. The attention was then turned back to our research projects, where we had the remaining portion of the day to go out and explore. Of course, I needed to grab a pair of waders and go back into the creek like last week. Elinor, Ella, and Aestas were going to look at the cover boards near the Learning Center. Anna and Smiley went out with me to the creek, which I really appreciated having the company. Smiley disappeared quickly though, running through the trees and creek. We would later hear her barking from afar, but Anna said it was not her typical Opposum bark, so she may have stumbled upon something else. Instead of the bathyscope this week, I was equipped with an endoscope to help me find Crayfish. It had all sorts of cool settings, you could adjust the contrast and even switch it to black and white for darker areas. I would use the camera to help search the burrowing holes along the sides of the creek, which have likely been created by Crayfish. These burrowing holes can even make their way up to the surface, but at that point they're known as Crayfish chimneys since they connect back to their aquatic habitat.

I first started searching in the large nook in the creek, which was much deeper than the main stream. I initially thought that this would be the best place to find a Crayfish, but I soon learned of the large mud deposits that littered the nook. While walking along the bottom, I kept

sinking in mud. There was so much that I was literally standing on top of mounds of mud while searching the edges for burrowing holes. I ultimately determined that the mud buildup was a result of the lack of rain, forcing lots of sediment into the nook. I also determined that likely few Crayfish were inhabiting the nook, due to the large mud build up. While they do prefer muddy habitats, I definitely think there was too much for their gills to filter out when breathing. The water was also pretty stagnant, which may indicate lower dissolved oxygen levels. I left the nook and searched elsewhere, towards more shallow areas and around logs and such. Though Anna and I both had no luck. We decided to switch sites to Kayak Put-In, which was where we found the Crayfish last week. I thought that we would have better luck there since there were a lot more burrowing holes evident over that way than in the stream behind the Learning Center.

Morgan and the rest of the interns also joined us at this site, which helped with my observations. Morgan found a crayfish chimney fairly quickly, which the Seek app indicated that it might belong to a Devil Crayfish (*Lacunicambarus diogenes*). These Crayfish are fairly large in size and are found in the Piedmont region of South Carolina.



Crayfish chimney



View of chimney with endoscope

While my search of burrowing holes at the creek edge was not successful in finding an actual Crayfish, I took some great photographs of examples of these holes.



Anna and I found that the best way to find a Crayfish was by flipping over rocks in the shallower portions of the stream. Ideally, rocks were flatter on the bottom to allow space for the Crayfish to hide under. The first Crayfish of the day was found by this method, and it was very little in size. The photograph I captured of this one is not great at all, since it swam away fairly quickly. However, we were lucky enough to find another Crayfish using the same method, who lingered around for quite awhile. I was able to get great photographs of this organism and am able to make out the distinct pattern on the back of its carapace. It was so interesting to see how it flicked its antennae in the water, along with how it crawled along the bottom of the stream. Every time Anna and I tried to pick it up, it would snap its tail to create propulsion that allowed for a quick escape. It would also keep rotating to position itself to face your hand, so its pinchers could reach. The orange markings on the top corners of the carapace and the first segment of the abdomen were unique, along with the overall gray color of the carapace. It also had a black dot in the middle of the carapace, right below the cervical groove. After further research on

iNaturalist, I am thinking this was an Acuminate Crayfish (*Cambarus acuminatus*). This would make sense, as they have been found in this region of South Carolina before, and adults of this species prefer slabs or boulders to hide under.

