

# Journal Entry #6 – Macroinvertebrate Sampling and Fireworks Prairie

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I had another wonderful week interning here at the Southern 8ths Farm! Our day started with the presentation on the events of the past week. This past week the game cameras captured photographs of Fox Squirrels, Bobcats, Coyotes, two Eastern Cottontail Rabbits jumping over one another, White-tailed Bucks rubbing antlers, and an impressive 1,700 photos of Raccoons at Kayak Put-In. The water level of the creek had also increased on Wednesday due to a storm that



Fireworks Prairie - Unburned

had passed through the area but the water levels were already back to what is considered “normal” for the creek. After our usual presentation we had another one about how to use equipment to sample benthic macroinvertebrates (the larval stages of aquatic insects, clams, mussels, snails, and worms). The South Carolina Adopt-a-Stream video that was shown along with the presentation was very informative and helpful! This was my first time ever sampling macroinvertebrates and the videos really helped me to understand how to sample the invertebrates later in the day. With each of us feeling prepared we decided to head off and start the outdoors portion of the internship.

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Fireworks Prairie - Burned (Loblolly)

We once again donned some waders and went to Kayak Put-In to sample some macroinvertebrates! Before we stopped at Kayak Put-In, David, Anna, and Morgan drove us to Fireworks Prairie to see the prescribed burn they had recently conducted. It was very interesting to see as we drove on the firebreak with a burned portion to my left and an unburned portion to my right. While it was a low temperature burn it was still interesting to see just how much was burned away. What intrigued me though was that the Sweetgum and Loblolly seedlings looked unbothered by the fire that had ravaged the grasses that they had once stood amongst. The sheer number of anthills was also surprising. While we didn't investigate the ant hills to see if we could determine what species

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Fireworks Prairie - Burned (Sweetgum)

they are, I wondered. They might be Red Imported Fire Ants, an invasive species of ants from Central and South America. Red Imported Fire Ants are one of the only species of ants that bite and sting at the same time! The sheer amount of anthills stood out and I pondered whether the ant hills were each a single colony or if they were one big colony? Maybe it was a combination of both! Throughout the time we were at Fireworks Prairie we saw and heard many birds. Some of the birds we heard included the Blue Jay, American Crow, Tufted Titmouse, Downy Woodpecker, Carolina Chickadee, and Carolina Wren. We also saw the Tufted Titmouse, Eastern Meadowlark, Carolina Chickadee, Turkey Vulture, American Robin, Common Grackle, Brown-headed Cowbird, and the Red-winged Blackbirds! They were quite active for it being an overcast day.



Dead Muskrat

After going to Fireworks Prairie we headed to the Burn Pile where Morgan had deposited a dead Muskrat. The Muskrat was found dead by the Pig Pen and Morgan believes that one of the dogs killed it. We were intrigued by it as it was the first time a Muskrat had even been found on the Southern 8ths Farm! It was smaller than a beaver and had a similar leathery tail. Its tail was skinnier than a beaver's tail though. It also had these massive, long, yellow teeth that glare at you, showing you that it can chew through the toughest trees! It will now need to be added to the species list for future reference if they ever see another one. We looked around the Burn Pile at some of the scattered bones (most of which are from Smiley's Opossum hunts) for a short while before continuing on to Kayak Put-In.

While we were outside the weather was fairly cold with the high being a chilly 59°F and a brisk wind that penetrates every layer of clothing, even with the waders. Despite this we continued on, and I was pleasantly surprised to find myself warm at Kayak Put-In. The wind luckily couldn't reach us where we were located in Thompson Creek and even though the water was very cold it wasn't as shocking as the week before. I believe that this is due to the water temperature being closer to the outside temperature especially when compared to the temperature difference between the two the previous week. We started sampling for macroinvertebrates using the Dip Nets along the bank of Thompson Creek where the silt, roots, leaf packs and other vegetation is. We then dumped and rinsed the Dip Nets onto the Kick Net so that we could sit around it and search for macroinvertebrates. Using the Dip Nets we found many macroinvertebrates, many of which look like little scorpions. After searching through the Dip Nets we moved on to



Anna teaching Jamison how to use the Dip Net



Adam, Morgan, and I using the Kick Net



Kayak Put-In



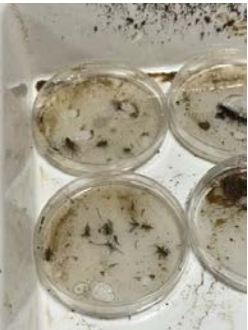
Dobsonfly Larvae

other sampling methods. Jamison and Anna went upstream to where there was more vegetation and leaf clumps from which to collect macroinvertebrates through the leaves by hand while Aidan, Morgan, and I used the Kick Net to sample macroinvertebrates.

To use the Kick Net we placed it in a riffle (a shallow, stony area of the creek bed with fast moving water) and weighed the edge down with rocks from the creek. We did this so that the current didn't just take the net and so that any macroinvertebrates that were disturbed would go into the net. I held the Kick Net in place while Aidan and Morgan kicked the creek bed just upstream from the net to disturb the macroinvertebrates and scare them to be carried by the flowing water into the net. Using this method we found an enormous Dobsonfly larvae as well as some worms. Dobsonflies are large flying insects (almost like dragonflies) that have antennae as long or longer than their wings. Funnily enough we even accidentally caught a small fish utilizing the Kick Net! I believe we found the worms using the Kick Net but not the Dip Net as the worms sit on the bottom of the creek bed and not in the banks. Unfortunately we were not able to identify the exact species of the other macroinvertebrates as we ran out of time, but they were preserved so that we can identify them the next time we are there!



Fish caught using Kick Net



Macroinvertebrates



Dobsonfly Larvae



Aidan, Jamison, and I searching for Macroinvertebrates