

Seth Wilson

## Lathrop & Capurro Intern Year End Report

My first summer as a Lathrop Capurro Intern was without a doubt the best summer of my life. I couldn't wait until I got the chance to do it again. As the school year dragged on I couldn't help but day dream about the summer ahead. That was until March of last year when Covid-19 first reared its ugly head. It didn't take long until normal life had come to a complete halt and along with it, my dreams of once again, embarking out as an NDOW employee for the summer. It felt like a huge blow at the time but after another full years waiting we finally got the news that we would once again get the chance to head out and do the things we love. Now that the summer has come to an end and I sit here writing this, I can't help but feel grateful for all the amazing experiences that I've had this summer and all the people and organizations that have helped to make the Lathrop program possible. Thank you to Nevada Bighorns Unlimited, Nevada Wildlife Record Book and the Nevada Department of Wildlife for providing all of us Lathrop/Capurro interns with these opportunities and helping to preserve Nevada's spectacular landscapes and wildlife for several generations to come.

This summer I was located out of Overton Nevada, about an hour east of Las Vegas. Having grown up in Reno I had very little experience with what southern Nevada had to offer. When I was told that this is where I would spend the duration of my summer I was fairly overwhelmed. The prospect of living in a camper trailer in a town of 2000 people where the high temperature could very well touch 120 degrees was daunting to say the least. Thankfully, the southern region supervising game biologist Joe Bennett did everything in his power to help me get situated there, at the Overton Wildlife Management Area.

I knew pretty early on that a large part of my duties would be helping to monitor and remedy the effects of the ongoing drought. This meant hiking into big game guzzler sights to assess water levels as well as work to haul water to sites that were of priority because of either their extremely low water levels or their importance to certain populations of sheep.

My work with these guzzlers started almost immediately, with the construction of a brand new project in the San Antonio Mountains northeast of Tonopah. This project had materials hauled in by helicopter over a year earlier but was derailed by the onslaught of Covid. It wasn't until the third week of May this year that we were able to begin prepping the site for a host of volunteers that would arrive later in the week. This process started on my first day, after meeting Sam Hughes, the southern region water development biologist and his technician Scott Cochrane. We began by figuring out everything that we would need to have with us to get the project started. After inventorying all the tools we'd need, we loaded up and drove to a spot north of Tonopah where we'd camp while we worked on laying the groundwork for the guzzler. We marked corners for where the pipe rail fence that surrounds the project's drinker and storage tanks would go, set the supports, called purlins, for the project's apron and worked to clear as much of the brush and large rocks as we could. After two days of this, Sam and Scott had to make a trip back to Vegas to prepare things for when the volunteers would arrive. In the meantime, I was able to attend the annual meeting where the season's upland game and furbearer regulations would be set. Being able to sit back and listen to what all of the state's game biologists had to say about the status of each of their respected management areas was fascinating. Witnessing first hand that not everything is butterflies and rainbows in regards to wildlife management was something that I had not yet been exposed to. It's no secret that not all the time do species thrive with

incredibly high numbers. Being able to watch as the biologists discussed the issues at hand and how to remedy them was beyond interesting and the insight that was shared was awe inspiring.

Later in the week when the volunteers were scheduled to arrive we were grounded due to storm conditions on the mountain. Losing a day with volunteers threw a pretty large wrench into the schedule of the build. The next day, after the storm had pushed through and a fresh sheet of snow was laid on the ground, we were given the go ahead to fly volunteers and the rest of our gear up the mountain. A total of about 25 volunteers were flown up to the site to help with the build. It was a long 12 hour day on the mountain but with all the extra help we were able to finish clearing the area of rocks and brush, get the apron laid, tanks installed and the drinker set. All that was left to do was put in a barbed wire fence around the apron and finish assembling the pipe rail fence. A small group of us went back up the mountain the following day to put the final touches together. With that, the project was finished and the San Antonio Mountains officially had their first big game guzzler installed. With the addition of this artificial water source the sheep and deer could expand their range; no longer being confined to the constraints of the very limited natural water available.

After the completion of the San Antonio build, the next few weeks were dominated by water hauls, a simple enough sounding task. Haul water from point A to point B until the guzzler's several tanks reach a substantial enough level. It may sound easy but the logistics that went into these endeavors were quite complicated. Water trucks, permission to access fire hydrants and other water sources had to be secured, extra hands from the eastern and western region had to be arranged and helicopter availability had to be scheduled. For the better part of a month this was life. We would all wake up well before sunrise to meet at a predetermined location to begin setting up for the day's hauls. Eventually we had developed enough of a system

that half the day's crew could split off to begin setting up for the next day. We would use several different portable, above-ground water storage tanks, referred to as pumpkins to keep the water accessible for the helicopter's bucket which hung down around 40 feet and was tethered to the belly of the ship. These tanks resembled a typical backyard swimming pool but were much more durable. Once the pumpkins were all filled by a water truck that was driven by either Bennie or Cameron from the Overton WMA or on a couple occasions Jason Salisbury or Kenny Pirkle from the NDOW office in Fallon, we would be ready to start hauling water. Once we got to this point, Rick Thielman, NDOW's chief pilot, would make between 4 and 8 minute round trips to and from each guzzler site, refilling his Bambi Bucket after each trip up the mountain, only stopping long enough to take on fuel and maybe grab a quick bite of a sandwich. The bucket that Rick would use to scoop water was specifically designed for this, allowing him to open and close the bottom of the bucket at different intervals from the cockpit.

At the guzzler site there would be 2 or 3 man teams running a water pump and keeping an eye on a foldable above ground tank that would be kept full by the helicopter. The water pump was used to move water through 100 foot lengths of hose, directly into the guzzler's tanks. This was without a doubt the most efficient way that we found to move the water but in a couple instances we were forced to release the water directly over the project's apron which would then move the water through the system as if it would during a normal precipitation event. The water would move into the system's gutter where it would be gravity fed through piping and into the system's tanks. The last option only had to be utilized a handful of times and is easily the most labor intensive of the three. Water would be released directly onto a mountainside where it would flow down into a concrete dam that is positioned at a pinch point in a canyon. This style of guzzler project is referred to as a slick rock. The water would pool up behind the slick rock

where it would flow through a screen and into the piping that would take it to the guzzler's tanks. After every drop, a fair amount of debris and sediment would be brought down, clogging the filter screen. The sediment would have to be shoveled and removed from the screen in between each drop. By the end of the day the stacks of dirt would be scattered all around the slick rock and several feet high.

After hauling well over 50,000 gallons of water, across several different mountain ranges we finally finished up with water haul projects around the Fourth of July. With these emergency hauls temporarily buttoned up I was able to branch out for a couple weeks, working with Tonopah game biologist Hunter Burkett and Panaca game biologist Daniel Sallee. In Hunter's neck of the woods I was primarily focused on recovering GPS collars from the Toiyabe and Toquima ranges. These collars came off both deer and sheep and were dropped after a preset amount of time, not as a result of a mortality event. Collars like these provide biologists with crucial data relating to travel corridors and winter or summer ranges that are being utilized by the different populations.

With Daniel, in Panaca, I was focused primarily on doing elk incentive surveys on several different properties. Elk incentive is a program that rewards landowners with a small amount of allotted elk tags for allowing elk grazing in native grass meadow complexes on their land. These tags are allotted by the number of elk utilizing the land. To accurately survey we use a combination of night vision goggles, spotlighting and glassing using binoculars in low light. These types of surveys typically begin several hours before the sun begins to rise and finish up not long after the sun comes up. After finishing elk incentive for the day I'd search for turkey sign at nearby springs and check the water level of surrounding guzzlers.

After finishing up with Daniel and Hunter and as my summer began to wind down, I was met with a host of different responsibilities. We had assumed that we would once again be hauling water but several annual summertime monsoons that had pushed through the region, kept our guzzlers in good shape. Because of this, my last few weeks were spent hiking into guzzlers to see the effects of the storms on the water levels as well as the slick rock's debris build up. This too was cut short after we were allotted helicopter time to survey the projects from the air rather than having to do it on foot. We flew most of the ranges in the southern region and were elated to see that several projects were at maximum capacity. This was a sight for sore eyes after looking at nearly dry guzzlers for the prior 2 months.

Once these flights were wrapped up I drove several routes conducting rabbit surveys in surrounding areas. This was a very lackluster task. Waking up at the crack of dawn to go 25 miles per hour down 20 miles of dirt road wasn't the most exciting endeavor that I'd found myself a part of. Despite my pessimism, this is an important annual series of surveys. While not exactly a keystone species, rabbits are a great indicator for the overall health of a landscape. If the rabbits are doing well it's not a far cry to assume that the other species are having success as well. Along with these rabbit surveys I was tasked with driving a fisheries stocking truck that was filled with 600 gallons of water in order to fill up a temporary cattle tank that was helping to supplement a herd of wild cattle that would've certainly perished otherwise.

Come the middle of August, I found myself packing up my personal truck and getting ready to make the drive back home. After waiting close to two years to have this opportunity, it was gone in a flash. I had the pleasure of working with several of my idols and getting to meet and create relationships with entirely new people that I've come to respect a great deal. I truly

cannot express what this internship has done for me in the past few years. Every day I'm grateful for the places that it has brought me, the people it's introduced me to and the wide array of experiences that it has thrust me headfirst into. Only 263 more days until we get to do it all over again.



