

Seth Wilson

Lathrop & Capurro Intern Year End Report

Each year I sit down to write this report and I can't help but talk about what it has meant to me. This was my last year as a Lathrop student and over the last four summers I have learned more about myself and what it takes to overcome obstacles alone as well as with a partner in the field. These challenges and learning lessons have been so nuanced because of the multitude of places that they've taken place. From the deserts of Southern Nevada to the thick aspen filled canyons of Northeast Nevada. These tremendous experiences are irreplicable and would never have happened if I were not part of this program. I've grown so passionate for this field and would not have near the same appreciation for it if I did not have the opportunity to work with so many biologists that carry the same passion, day in and day out. During my time as a Lathrop student, I've met some of my best friends, had the chance to work with many of the species that I was enamored with as a kid, and have had a plethora of experiences that I never thought that I would have the chance to be a part of. None of this would be possible if it were not for the continued support from Nevada Bighorns Unlimited, Nevada Wildlife Record Book, and the Nevada Department of Wildlife. The James Lathrop and Wayne Capurro Memorial Internship is immeasurably special, and I hope that Nevada students will continue to have the opportunity to take part in such a wonderful program for many years to come.

My summer started later than anticipated this year due to an unexpected injury earlier in the summer. I began my summer in Elko just after the fourth of July. Right out of the gate I was met with one of the most interesting days I have had in the field. Travis Allen was monitoring a cow elk that was experiencing symptoms from a novel disease that has not yet been identified. This mysterious sickness has been having a significant impact on elk in area 6, resulting in an

annual seasonal mortality of approximately 25 percent of collared individuals. Travis has been working hard to identify the origin of this disease and has secured several samples from individuals that had already perished but had not yet been able to retrieve a sample from a live animal that was actively showing symptoms of this sickness.

On this day, Travis got a notification from this elk's mortality implant transmitter (MIT), that told us she was experiencing a very hot fever, with her temperature spiking to over 105 degrees Fahrenheit. Elk have an average internal temperature of around 102 degrees and a fever of 105 degrees will often time result in death. In order to attempt the retrieval of blood samples prior to mortality occurring we needed to utilize the help of one of NDOW's pilots, Bill Cook, as this cow was located almost 5 miles from the nearest road system. Travis and I, as well as Travis' seasonal, Peter Lacono, were dropped off a half mile from the most recent point sent from the elk's collar. Using the aid of telemetry, we located the cow bedded in a steep canyon. I remained at the top of the mountain to spot as Travis and Peter began stalking into the elk, equipped with a loaded dart gun that would be used to shoot a dart equipped with drugs that would quickly tranquilize the elk with the successful administering of the drug. Travis snuck into 30 yards of the animal and was able to put a dart into the muscle of her back left leg. The cow was asleep within five minutes, and we set to retrieving several blood samples before reversing the drugs. She took a few minutes to wake completely before she safely sauntered off. Bill picked us up and delivered us safely back to the trucks before flying the samples back to Reno where they would be sent off for testing.

Later that week, I assisted with an event put on by NDOW's conservation education division. This was a kids fishing derby located at Angel Lake outside of Wells. It was a huge turnout with lots of kids and their families attending. Participants had the chance to bring their

catches to a measuring station to compete for prizes in several categories. There were also stations set up where the kids could meet a game warden, practice their casting, explore a forest service fire truck as well as one of NDOW's fish stocking trucks. Everyone left with smiles on their faces and every child got to take a prize home with them.

The following week I got my first chance to work with my partner, Isaiah Werlinger. We had a diverse week working for area 7 biologist Kari Huebner. We started the week in Pilot Valley conducting elk incentive surveys on two properties that butted up against the Utah border. We searched for signs of elk usage near water sources and bedding areas to approximate overall abundance and usage on the two properties. These surveys help provide insight for the elk incentive program that rewards landowners with landowner tags to incentivize the continued allowance of elk on their private property. The remainder of the week was spent running rabbit routes in area 7. These routes are important to understanding rabbit numbers across the state as rabbits are a great gauge of the health of an ecosystem. These routes are conducted shortly after sunset and are driven at a constant rate of 20-25 miles per hour on a designated route. As rabbits are seen, their location and species are noted and later compiled into a larger data set at the end of the summer.

After working for Kari, Isaiah and I traveled down to Eureka to work with biologist, Josh Kirk, for the week. We began the week on Robert's Mountain looking for fresh deer fecal samples to be sent off to a lab to assess and identify the diet of deer in the area. It sounds relatively mundane but searching for fresh scat was very interesting. Once we located a group of deer, we would observe them until we saw the tell-tale sign of the dropping of fecal pellets. When this occurred, they would lift their tails indicating they had had a bowel movement and we would walk over to begin searching for it. I've never watched a group of animals waiting to

observe a particular behavior such as this. Looking for this minute action was harder than I had anticipated as one person had to be always watching to ensure nothing was missed. The rest of the week we split up from Josh and began conducting chukar brood surveys in the Simpson Parks and Cortez Mountain ranges.

Brood surveys are very important and are conducted on select routes every year. We wait to begin our surveys until after 9am to allow the temperature to rise, increasing the likelihood of birds being near water and riparian areas as this is the best chance, we have at seeing and classifying birds. Birds are classified on a 1-4 scale. Chicks that are in the first stage are newly hatched and can fit in the size of your palm. In the final stage, birds classified as a 4 are about the size of adults but are blander in their coloration, lacking distinguishing marks on the wings and head. Isaiah and I encountered rough roads that had been severely impacted by this year's above average winter. We got plenty of practice navigating washouts and other rough road conditions. Prior to our surveys, seasonal thunderstorms had moved through the area dispersing birds away from permanent water sources. This made surveying difficult, but we were still able to locate and classify some large groups of chukar.

Our next week of work was again spent with Kari in area 7. We conducted more brood surveys along highway 93, north of Wells. We again had thunderstorms that had moved through the area, but birds still seemed to be congregated near permanent springs and other water sources. After the conclusion of our brood surveys, we got the chance to attend a field tour with the area 7 mule deer enhancement program group (MDEP). We toured several sites in area 7 and 8 looking at habitat improvement projects implemented inside of historic burns scars. During our stops at these sites the group would discuss problems imperiling mule deer in that part of the state. These are some of my favorite days as the conversations that are had are interesting, as

many nuanced topics are covered. Hearing the opinions and thoughts of diverse stake holders provides a lot of insight and makes for thought provoking discussion. I've had the chance to be apart of a few field tours in different parts of the state and there are always a few overarching themes discussed as well as issues that are unique to certain areas. These tours really bring to light the major problems experienced everywhere and possible solutions to these issues. I wrapped up my week with Kari using telemetry to locate a collared cow elk in the North Pequops. Kari was interested in seeing how many elk were traveling with this cow and upon locating her I counted an additional 65 head of cows, calves and young bulls all feeding together. This elk had eluded us in previous attempts to locate her and it felt good to find her with so many others.

Our week with Kari was Isaiahs last as he was set to pack up and head home to prepare for the upcoming school semester. I was only able to work with Isaiah for a few short weeks but learned a lot from him and enjoyed trying to teach some skills that I had acquired during my previous summers. We had some great conversations that I certainly missed having during my next few weeks working alone. The weekend after finishing with Kari there were two collaring projects happening under Matt Jeffress and Scott Roberts. Prior to the day of the capture Matt had asked me to scout a few locations in the pinion range in unit 065, to locate groups of deer that could then be relayed to the helicopter crew the following morning. On the day of the capture, we had three groups of NDOW employees and seasonals spread across the valley to search for deer and antelope. I worked with Megan Lewton, a seasonal in the diversity division that decided to volunteer to help on the project. Each group worked to locate animals and relay their positions to the helicopter crew. We were aiming to collar 10 mule deer does and 10 antelope does. I've never called locations to a helicopter crew before and after a brief learning

curve we began communicating well and had no issues guiding them on to animals. Megan and I successfully called out the locations of 3 deer and 2 antelope. Two of the deer were netted close enough to us that we had the opportunity to assist the capture crew in processing them. The deer were outfitted with GPS collars and an ear tag was placed in either ear. In addition to this we took photos of the teeth, took swabs of both nostrils and blood was drawn. Both the blood samples and nostril swab were sent to a lab for testing. The next morning, we traveled across the valley to the rubies in area 102 to collar 20 more deer. Both captures went off without a hitch with zero capture myopathy! These were both great experiences and I'm overwhelmingly grateful to have gotten the chance to help with them.

After the conclusion of our deer and antelope captures, I traveled to Ely to work with Biologist Kody Menghini. He asked that I go down to work inside of Great Basin National Park. A few days earlier a mountain lion had found its way into a group of domestic sheep in a grazing allotment that borders the park and as a result the sheep pushed across the park's border into an area with Rocky Mountain Bighorn Sheep. If the domestic sheep managed to contact the bighorns it could have resulted in the transmission of pneumonia which is very contagious and often fatal to bighorns. Monitoring had already been conducted and the domestic sheep herd had been gathered and moved back to BLM land. I took the Mount Wheeler trail and glassed several areas during the week looking for any stragglers that may have split from the main herd. I did not find any domestics remaining and none of the previous monitoring had either.

I returned to Elko and worked with Matt Jeffress during the next week. I conducted brood surveys in Elko and Lander counties for the first part of the week before traveling to Winnemucca to attend the Nevada Mule Deer Enhancement Summit. At the summit, wildlife professionals from around the country presented several different topics that pertain to the

continued conservation and management of mule deer in the west. There are several key factors that are imperiling deer in Nevada. Topics such as habitat, predator control, feral horses and climatic conditions were all discussed. Hearing presenters speak about the nuances and possible solutions to these issues was fascinating.

During my last week I worked with the area 10 biologist, Scott Roberts. We started the week hazing elk off a meadow complex that was owned by a large mine. The mine is not currently operating which allows us access in to attempt to push the elk onto public land. During the middle of the week, I conducted brood surveys in the Goshutes and Adobe ranges. On my last day we returned to the mine to continue our hazing efforts, finding that the elk were remaining on public land not returning to the mine.

Four years ago, it felt like the end of college and the end of this position would possibly never come. Writing this final summer report really puts into perspective how much of my life has been influenced by being a part of this program. The experiences I have had and the people I have had the pleasure of meeting have helped make me the person I am today. These four summers will be one of the highlights of my life and I'm overwhelmingly grateful for that.





