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Conservation Aide 1

### 2023 Lathrop & Capurro Intern Summer Report

As my summer comes to an end and I head to school, I can't help but reflect on all I have experienced in the past few months as a Lathrop & Capurro Scholarship intern. I want to express my heartfelt gratitude and appreciation to the members of Nevada Bighorns Unlimited and the Nevada Wildlife Record Book for granting me this opportunity. Through their generosity, I had the chance to obtain the skills, experience, and knowledge throughout a very memorable summer. It is also appropriate to express my thanks to the Nevada Department of Wildlife for hosting me as a Lathrop & Capurro Scholar. This extends to all NDOW employees I was fortunate enough to work for who took time to teach me the important principles of wildlife conservation. Finally, I would like to thank my partner, Emma Glover, for experiencing an adventurous summer alongside me. Emma was partnered with me for her second year as a Lathrop & Capurro intern to help guide me through my first summer, and I can confidently say that there was no better role model. Emma's desire to work the hardest she can for Nevada's wildlife is unmatched and I am thankful for her guidance during my first summer.

I was assigned to the Southern Region for my first the summer and we were fortunate enough to be stationed in Tonopah, Nevada. Tonopah may be no more than a stop for gas when driving through for most, but I quickly realized its abundance of natural resources and wildlife found in central Nevada. Working with Game Biologist Hunter Burkett, we began work in the Monitor and Hot Creek ranges where we helped with a mule deer fecal collection project. Sometimes being in exact locations where mule deer had been in the past 24-48 hours, the

collections were used to analyze summer and winter ranges of mule deer in habitats shared with wild horses. We explored habitats where deer were active and observed several beds, tracks, and other indicative sign. Tracking deer that were wearing GPS collars, I was able to get a better idea of the collar technology that NDOW uses for wide variety of our big game species. I found it very interesting to have to ability to track an animal for several days, taking note of frequently visited locations, unusual travels and daily patterns using the collar frequency.



In the following days, we traveled south of Tonopah, near Lida, NV to help construct multiple small game guzzlers accompanied by members of Wildlife Habitat Improvement of Nevada (WHIN). Site located by Hunter Burkett, these small game guzzlers are crucial to species like mountain quail in the southern region of Nevada where water is in short supply. At the end of two days, we managed to get three entire guzzlers constructed and a significant start to a fourth that would be finished later that week. Our help directly benefits several species in this area by ensuring a constant and reliable water source. This project was rewarding in the fact I knew there was going to be wildlife using these guzzlers as soon as they had the opportunity to fill up.

Following these projects, we traveled south to assist with bighorn sheep captures. In my opinion, some of the most barren, rocky, treacherous, and spiny territory in the state is home to some remarkable big game. I spent two days in the Last Chance and Spector ranges helping with an effort to capture, process and examine desert bighorn sheep to monitor a widespread disease that Nevada's sheep populations can suffer from. Pneumonia is a very contagious disease that can be spread from domestic sheep to wild sheep when in close contact. Although domestic

sheep are not affected, the consequences to wild sheep are very extreme and deadly. Captured sheep were hobbled and slung below a helicopter to a base station for processing. In order to prioritize the health of the sheep, handling time was limited to just a few minutes to reduce stress. I assisted with a number of activities including ear, eye and leg checks, administration of supplemental oxygen, ultrasounds, injections of various shots, nasal swabbing, blood draws, temperature monitoring, and outfitting of collars. It takes a focused team of people to get all



these procedures done in a timely, efficient manner with the sheep's needs as a mutual top priority. One ewe was positive with pneumonia from a previous capture. Because of the threat posed to the remaining herd, she was euthanized. The subsequent necropsy was fascinating to see exactly how the sickness was infecting the ewe's head, nose and throat. I am proud to serve on a team of front-line professionals who

are trying to stop the spread of an illness that can be so destructive to our native wildlife.

Our next adventure was in Indian Valley in the Toiyabe Range to assist diversity biologist, Michael West is the annual Columbia Spotted Frog survey week.

Small teams of people were employed to collect all frogs from predetermined habitats with long nets. Captured frogs were measured, sexed, and scanned for previously implanted PIT tags and inserted with one if needed. Body length measurement, age estimate, and sex were also



collected. Some previously tagged frogs were found to be ten years old and even captured miles away from where caught in the prior year. "Frog Camp" taught me more about the aquatic side of Nevada's ecosystems that I was not as familiar with.

After a grocery run and a shower, Emma and I traveled to Panaca to assist game biologist, Matt Shanks with elk counts on private properties around Lincoln County that are enrolled in NDOW's Elk Incentive Program. We conducted the counts at dusk, late in the night when it was completely dark, and early morning at dawn. We spent time at twelve different properties and used a spotlight and binoculars to get an accurate count of as many animals as possible. We quickly learned that with no prior experience spotlighting, this was a teamwork activity. Emma and I would take turns spotlighting and looking through our binoculars to get our best count before the elk would begin to scatter. These days in Panaca and Pioche represented my first exposure working with elk and I have an appreciation for time and effort biologists take to assess accurate population numbers for the management of our big game herds. The commitment these biologists have for their job and for wildlife is truly admirable and keeps me eager to continue my path to conserve and manage wildlife.



While in Lincoln County, we also had the opportunity to assist Matt Shanks with a mule deer enhancement project associated with enclosing a large spring complex with a pipe rail fence. This spring is a crucial watering site for mule deer but gets extremely overused by the large number of feral horses in this area. The horses have been proven to trample the spring and limit access to it for wildlife. This was a multi-day project that included help from several NDOW personnel and volunteers. After an old, outdated barbed wire fence was removed, work focused on construction of a new enclosure for the spring. Some segments of the fence built on steep hills and heavy materials were in constant need of being gathered or moved from one place to another. The team of people that I worked with on this project were nothing less than resilient,

especially in during the hottest part of the summer. There was a shared motivation and perseverance seen in the group through a common goal for the betterment of Nevada's mule deer.

After another quick turnaround, we were on the road to Las Vegas to work for biologist, Erin Wood in the Spring Mountains. A unique mountain range located just outside of Las Vegas, the Spring Mountains surprisingly have pinion juniper habitat, along with tall ponderosa pines and even a component of oak brush. We assisted in an ongoing study associated with mule deer distribution and use in the area. As a portion of this study, there are several trail cameras stationed on small seeps of water in efforts to monitor mule deer utilizing these springs. We were tasked with visiting roughly ten of these locations to perform maintenance, check batteries, and swap SD cards on the trail cameras. While we didn't see any deer during our field activities, it was exciting to know that we played an integral part in a larger study. This is yet another tool that biologists use for managing our wildlife and I am excited to have learned more about how this method of data collection works.

For the final week of the summer, I helped with a giant effort to move equipment and materials associated with a fence project in the Monitor Range. Butler Basin lies at the top of the Monitors and contains some extensive spring systems that are utilized by elk, mule deer and unfortunately an overabundance of feral horses. The horses in this basin are by the hundreds and pose a huge threat to resident wildlife and cause extreme degradation to water sources. After



more than a decade of planning and permitting, a fence project to protect these springs has begun. These fences will allow wildlife to easily access water based on their ability to jump but are specially designed to keep horses out. Our task this week was to sling load bundles of fence material to the project area. It was our job to sling bundles of material up to the

sites, ready for the company to build. Piloted by Rick Thielmann, a department helicopter was used to sling 119 loads of metal rails and posts to the top of the mountain to the 3 spring sites. On the ground crew, I helped rig up the bundles of material with cables and attach them to a helicopter clip that the pilot has control to detach as necessary. On the mountain, a team would be waiting to receive the materials and detach the cable from the ship. Getting to work with the wildlife helicopter was a brand-new experience for me and being involved in a project that took a tremendous amount of time and effort was an honor. I am aware of the severity of this issue in our state and feel proud to have been a part of the team who helped facilitate the build. I have no doubt these enclosures will make a difference for wildlife and will prove to be extremely beneficial immediately.

The experiences I had, and knowledge gained this past summer was only compounded by my partner, Emma. Emma taught and guided me throughout all aspects of what it takes to be a valuable asset to NDOW. She completed every one of our tasks with energy and effort that I couldn't help but match. She is someone who takes time to do things the right way, even if this meant working a longer day or hiking an extra mile. I will be lucky to meet another person with such a strong character, motivation to conserve, and a love for Nevada sunsets that is just as strong as mine.



I had a passion for wild places and wild animals prior to this first summer as a Lathrop & Capurro intern but I wasn't aware of the extent of this passion until I got to participate on a team of people working for wildlife and its habitat. Assisting with field work and observing how my efforts were going to be utilized in the future gives me a complete feeling of satisfaction. At the same time, I hunger for more. I felt like my work this summer really made an impact and made a

significant difference to benefit wildlife. I am humbled at the same time by the sheer beauty of Nevada's backcountry and the extent of knowledge held by NDOW's professionals. Looking back on this summer, the world of natural resources, particularly in Nevada, is extremely unique and holds a deeper and stronger meaning to me than it ever has before. I am truly thankful for the experience.