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### Lathrop & Capurro Summer Report 2023

Another summer has come and gone as a Lathrop & Capurro intern and once again, I had the time of my life. I would like to begin by thanking all the amazing organizations that make this internship possible. Without Nevada Bighorns Unlimited and the Nevada Record book, I, as well as five other amazing interns would not have the opportunity to learn firsthand about the conservation and work that it takes to maintain and help Nevada's wildlife thrive. I would also like to thank the Nevada Department of Wildlife and the southern region biologists for having me and always being willing to teach and share their knowledge. For my second summer in this program, I had the privilege of being stationed in Tonopah and working mostly with game biologist Hunter Burkett and getting to explore southern Nevada for the entirety of the summer. I was also incredibly lucky to be partnered with first year intern Chloe Crookshanks, who not only is an incredibly hard worker, but also has an unmatched and admirable passion for the outdoors. This summer, Chloe and I did an abundance of interesting tasks; the main ones being; fecal collection, Desert Bighorn Sheep captures, elk incentive counts, and lamb surveys as well as many other fun and exciting projects.

Before Chloe arrived for the summer, I was sent to work with the southern region guzzler crew to work on two big game guzzlers in the Reveille Mountain range east of Tonopah. Guzzlers are a man-made water collection system consisting of an apron that catches rain water and a self-leveling water tank and drinker system that provides wildlife with access to water even through drought. I spent my first week helping the guzzler crew to do all the preliminary work that needs to be done before the volunteers can come for the main building event. A little bit later in the summer Chloe and I went on another guzzler project near Lida, NV, where we helped to build four small game guzzlers. No matter how many guzzler builds I go on I am always amazed about how rewarding this work is. Working with members of the community to help bring water sources to Nevada's wildlife will never get old.



Throughout the summer, Chloe and I did a number of lamb surveys in the Monitor range, the Monte Cristo range, and the Volcanic hills. When we do lamb surveys, typically there are one or two ewes that are collared. We go into their most recent GPS point, and we try to find them with telemetry. Once we find them, we are looking to count the number of sheep in the group, classify their age, count the lambs, and look to see if they are coughing or showing any signs of pneumonia. We did two lamb surveys in the Monitors. In June, we found 3 total ewes, 2 lambs, and

one yearling ram for a total of 6 sheep in the group. When we went back in July to find this group of sheep again, we saw 6 total sheep: 5 ewes and one lamb. Chloe and I did two lamb surveys in the Monte Cristo range this summer: one in early June, and one in July, looking for the same group of sheep. When we went in June, we found 24 total sheep with 13 ewes, 9 lambs, and two rams that looked to be about four years old and 2 years old. When we went

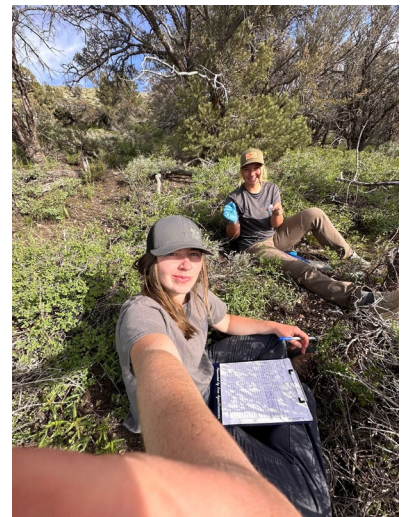


back in July to find this group again, we found 16 total sheep, with 13 being ewes, two being lambs, and one ram that looked to be about four years old. We went to the Volcanic Hills twice to look for the same group of sheep. When we went in June I saw 4 total sheep with one being a ewe, two lambs, and one ram that looked about three years old. When we went back to look for those sheep in July, we only found two ewes, one with a collar and one without, but they were not with each other, they were separated.

For the majority of our summer, Chloe and I were working on a research project that game biologist Hunter Burkett was doing for the department and for his master's program. The goal of this project was to compare the diet of mule deer in their winter ranges vs their summer ranges. Chloe and I were tasked with collecting fecal samples from certain collared deer. Hunter would give us points of their most recent location, and we would go try to find the freshest fecal samples

possible in that area. We worked on this project for a total of about 4 weeks throughout the summer. Most of these collections took place in the Monitor range and the Hot Creek mountains. During these collections, we also helped predator staff specialist biologist, Pat Jackson, on his study where we collected mule deer fecal samples and feral horse fecal samples to look at the competition among their diets and the effect on deer in areas where feral horses are present, specifically Butler Basin in the Monitors.

During the end of July, and the beginning of August, Chloe and I went on a little road trip to the Toquima Mountains for frog camp, Pioche for elk incentive surveys, and the Spring mountains to help place trail cameras for the Mule Deer Enhancement program. I can confidently say that the week we spent at frog camp was one of my favorite weeks during the



summer. Frog camp is an almost twenty year old tradition within NDOW, where fisheries and diversity biologists get together for a week to do a capture, mark, recapture survey on the Columbia Spotted frog. Essentially, we got to spend a week catching frogs, giving them pit tags, and releasing them. Some of the frogs that we caught were up to twelve years old and had traveled up to two miles from where they were originally caught and tagged. Being able to meet new biologists within

the department and from other agencies within the state and learn from them was an amazing experience and I hope to be able to return in the future.

After frog camp, we headed down to Pioche to help game biologist Matt Shanks with Elk incentive surveys. The Elk Incentive program is a program that rewards land owners in Nevada with elk tags in exchange for letting the elk use their property. The number of elk using these private properties determines how many incentive tags the landowner receives. Chloe



and I were tasked with going to these private properties at dusk and at night to spotlight and count the number of elk using these properties. These numbers will then be used by Matt to determine how many elk tags the landowners will receive. After we were finished with these counts, we were sent to help on Matt Shanks' habitat project. For this habitat project, we teamed up with volunteers from various conservation organizations to build a fence around a spring to preserve its integrity from wild horses. Just like guzzler builds, this project was extremely rewarding. Knowing you are actively helping Nevada's wildlife by preserving their water sources will never get old.



For our last week on the road, Chloe and I headed down to the Spring mountains near Las Vegas. We assisted game biologist Erin Wood in setting up trail cameras near water sources to monitor the use that they get by Mule Deer for the Mule Deer Enhancement Program. Erin would give Chloe and I points of existing trail cameras, and we would either drive or hike in and change the sim cards and add locks and NDOW stickers to the cameras. In addition to this, we also collected fecal samples from Mule Deer and elk near the cameras. Getting to spend a week in this part of the state was a great change of scenery and although it was very hot, it was extremely rewarding work.



Although frog camp was one of my favorites, it doesn't beat the week that I'm about to describe. This summer, I was fortunate enough to be able to attend a whole week of Desert Bighorn Sheep captures. We did captures in the Stonewall mountains on the NTTR, the Last Chance range, and in the Spector range. During these captures, the capture crew goes up in the helicopter and uses a net gun to capture the bighorn sheep. They then bring the sheep back to the basecamp that is set up on the ground and we get to do a full workup on them which includes, weighing them, taking blood samples, adding an ear tag, giving them a collar, and monitoring their temperature to make sure that they don't get too stressed during this process, and testing them for the *M. ovi* virus. Back in November, there was a sheep captured in the Spector Range that had tested positive for the *M. ovi* virus.

During this capture, the capture crew was able to bring this individual back to us and Chloe and I got to watch the necropsy on her for the first time. Watching the experienced biologists perform this was not only educational but by watching them, I got an amazing feel of the respect and passion that the biologists have for these animals. Being up close and being able to be hands-on with these amazing animals is one of the best learning experiences that I have ever had. These captures not only taught me more about sheep than I ever have learned, but also gave me an astounding appreciation for this amazing animal.



Once again, an NDOW summer did not disappoint. Getting to spend the entirety of three months in the most remote places of southern Nevada was challenging at times, but an invaluable experience. Working with the southern region biologists from all departments taught me to expand my horizons and to keep an open mind to all aspects of the outdoors. I would like to, again, thank the Nevada Department of Wildlife, the Nevada Record book, and Nevada Bighorns Unlimited for another unmatched and memorable summer. I will never get tired of spending my time working with Nevada's amazing and unique wildlife and learning from the biologist's extensive knowledge. I will always have a passion for this field and with the experience that I have gained from this program I hope to be able to

continue along this path in the future. I am already counting down the days until I get to be driving Nevada's dirt roads again and working for this amazing agency.

