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Conservation Aide 3

Summer 2023 Lathrop-Capurro Memorial Internship Program Final Report

This summer was my first year as a Lathrop-Capurro intern and I undoubtedly had the most exciting and educational summer of my life. I was extremely fortunate enough to apply for this program as an incoming junior and be accepted, and I am ever so grateful to Nevada Bighorns Unlimited and the Nevada Record Book for sponsoring this extraordinary experience. The Lathrop-Capurro Memorial Internship Program is by far and away the greatest opportunity

for wildlife students to apply real-world conservation efforts in a field setting. The expanse of knowledge I have acquired this summer because of this program is unmatched by any other. Without this opportunity I would never have been able to make the connections with some of the most amazing biologists, state personnel, and volunteers that the wildlife world has to offer. I could never adequately thank all of the individuals I have worked with enough; they are absolutely one of the biggest reasons that I love this job and the field I'm in. I would also like to make a



special thank you to my partner, Cade Crookshanks. Cade is an exceptionally knowledgeable student and hard worker, which made him a fantastic mentor and the best person to have by my side. My final thank you goes out to the Nevada Department of Wildlife itself for championing this position and making it possible for students like me to do the things we love. During our first week in the Western region, Cade and I helped area game biologist Carl Lackey and other local biologists with repairing a leaking guzzler in the Virginia Range. The guzzler itself is an integral part of the area's year-round water supply for wildlife, especially during the hottest months where water is limited. The holding tanks underneath a guzzler's apron are meant to retain water that is captured via snow and rainfall on the apron above, however, the plumbing fittings on these tanks were allowing water to leak into the surrounding dirt rather than



filling up the tanks. To resolve the issue, the crew and I dug down to the fittings where we plastic welded new units to the tanks. During the reconstruction I was able to gain a great deal of insight on the importance of guzzlers on Nevada's landscape and the species that heavily rely on man-made water repositories. This water resource is an essential for the range's bighorn sheep herd. In the weeks that followed, Cade and I would return to the site to ensure that the tanks were reserving water once again.

Once we had finished checking the guzzler we were entrusted to locate and identify lamb recruitment, or the number of lambs, in the local bighorn sheep herd. After a short drive, we located, counted, and took amazing pictures and videos of the herd for regional biologists. These majestic animals are a testament to Nevada's beauty, and I am unbelievably grateful to be working out on the landscape that they live in.

Over the course of the summer, Cade and I were able to attend three bighorn sheep captures, of which were in separate mountain ranges. The first capture we assisted on was in late June, where we helped area biologists Ed Partee and Sarah Hale in the Sheep Creek Mountain range with a relocation. The purpose of this capture, as explained to me by NDOW's lead veterinarian Nate LaHue, was to decrease the ever-growing population of the sheep in the range,



due to increased potential for dangerous disease transmission, namely strains of pneumonia. The other purpose of this capture was to increase the probable fecundity, or number of offspring, in a smaller herd further west in biologist Jon Ewanyk's unit. To carry out a capture that fulfilled both of these purposes, it was decided that the crew would remove five viable male sheep from the range and transport them to the receiving range. The following two captures occurred in

the north part of the Virginia Range and the Santa Rosa Mountain ranges, where we captured for Mycoplasma ovipneumoniae (*M. ovi*) testing and collaring. *M. ovi* is a deadly strain of epizootic pneumonia that is usually transmitted from domestic animals to wildlife, this bacterial pathogen heavily affects lamb recruitment in bighorns. Shedders, the term used for sick individuals, will spread the disease throughout the herd and when lambs are infected, their survival rate is

exceedingly low. Once captured via net gun, the bighorns are then slung down from their range to a base camp where the crew and I begin collecting samples, recording relevant data, tagging, and collaring. The sheep are then released on site or slung back out onto the mountain by the helicopter capture crew. Nasal samples are sent to labs for testing and later reviewed for results. Through these captures, biologists can identify shedders



and potential at risk herds, as well as make informed management decisions based on the information gathered. I've been so lucky to not only be present on these captures, but to also be an active member in preserving one of Nevada's greatest game species.

Working as a Lathrop-Capurro student in the Western region means that I got the unique opportunity to work under wildlife biologist Carl Lackey and urban wildlife biologist, Rebecca Carniello, gaining hands-on experience with bears. Both Carl and Becca taught me how to

properly "work-up" immobilized bears, as well as their methods of data collection and urban wildlife management. Carl is a thirty-year veteran of the department and is an absolute expert and authority on bears within the Western region. Becca has an exceptionally diverse background and is highly educated on bear-human interaction. Between



these two mentoring biologists, I gained a significant amount of awareness about the education required for managing bears and the public. Heavily populated residential areas in the farthest parts of the western region often face the most interaction between humans and bears. It is important to remember that these animals are in fact wild, and predators, meaning they are not safe for humans to interact with at close proximity. Residents in these areas are encouraged to lock-up their trash, homes, and vehicles, as well as keep their pets and livestock in secure places. When bears learn undesirable habits such as not being afraid of humans, committing livestock depredation, and getting into trash, they often will require relocation and heavy hazing. In these situations, Carl and Becca invited us to help them set and move culvert traps, which are large metal live traps used to humanely capture bears. Once a bear is captured, we then "process" the animal by collecting samples and data on the individual. Each individual bear case is given careful consideration from both biologists, and in many situations a committee of department heads to determine the proper course of action for management. In most cases, the bears that are of low-level concern are captured and tagged for later



identification, released in open range away from urban areas, and hazed to be afraid of humans and the spaces they occupy. Being a Lathrop-Capurro intern meant that I had the honor of handling and caring for these animals, in addition to helping spread awareness about bear safe practices. My experience working with these two fantastic biologists was my favorite portion of the summer and I am so excited to volunteer with them in the future.

Throughout my time working for NDOW, I also participated in the less flashy and glamorous responsibilities that biologists must do. Chukar and rabbit routes are some of the most important surveys for indication of health in an area. A chukar route is a road driven route where birds are counted and classified by size and age. By counting and classifying these birds, biologists can approximate the number of offspring per adult pair and determine the growth of the species in the area. If average brood sizes are low, it could point to several negative possibilities for chukar reproduction. Over-predation and lack of resources such as water, food, and cover vegetation for habitat could all be potential causes to a decreasing population. When biologists are able to estimate population size, they are able to create the best course of management action. Rabbits are another indicator species, which makes rabbit routes a significant and essential part of a game biologist's job. Species and number of rabbits on a driven

route are accounted for, and like the chukar routes, are used to create conservation plans. I performed these surveys across northwestern Nevada and helped both Jon Ewanyk and Ed Partee in their evaluations of their units. Though the act of doing these routes can seem mundane, they are crucial in game management and understanding the overall health of an ecosystem.

As I'm headed into my first semester at the University of Nevada, Reno, I realize how fortunate and blessed I am to be living in this beautiful state and given the opportunity to work here. I love being outdoors and making contributions to my home state and its wild inhabitants. I want to again make a huge thank you to all the organizations and people who made this program, and my participation in it, possible. I am so ecstatic about my future in this field and where experiences like this one will take me. The Lahtrop-Capurro program has truly doubled my passion for wildlife management and conservation, and I cannot wait to learn in another region next summer!



