

Summer 2021 Lathrop/Capurro Internship Report

Samuel Oberto

8/20/2021

Time, “the indefinite continued progress of existence and events in the past, present, and future regarded as a whole.” This definition is what I think as I look to the past, present, and future of what has been accomplished during my three years as a Lathrop/Capurro intern with NDOW. Another summer has come to an end and here I am trying to transfer what is in my head to paper. I have experienced another 3 months of development through the program and increased my knowledge of the state's wildlife and the tools used to manage it. My first summer was spent working in Lincoln County (Southern), my second spent in the green hills of Elko County (Eastern), and my third here in Washoe County (Western). Having been able to work in most of the state has allowed me to understand the different ecosystems, wildlife, and management involved within our state borders. Combined with my ongoing education in Rangeland Management at the University of Nevada Reno, time has been my friend in progressing through the program and my education. The summer of 2021 was a busy summer. In my report, I will include the activities I have participated in. These include Black bear management, small predator analysis, Beaver management, Canadian goose management, Upland bird survey, Sheep survey, and guzzler water transfers.

It's no secret that Black bears are a unique game species here in Nevada. While we do not have a large population of them, they can be found in density around the Sierra mountains where habitat is favorable. Because these animals generate increased public interests and are occasionally found in local communities, management for them is slightly different than other game animals. Working with biologist Carl Lackey and Heather Reich, I learned a few of the management practices. When There is a nuisance bear in a community, a trap is typically set to

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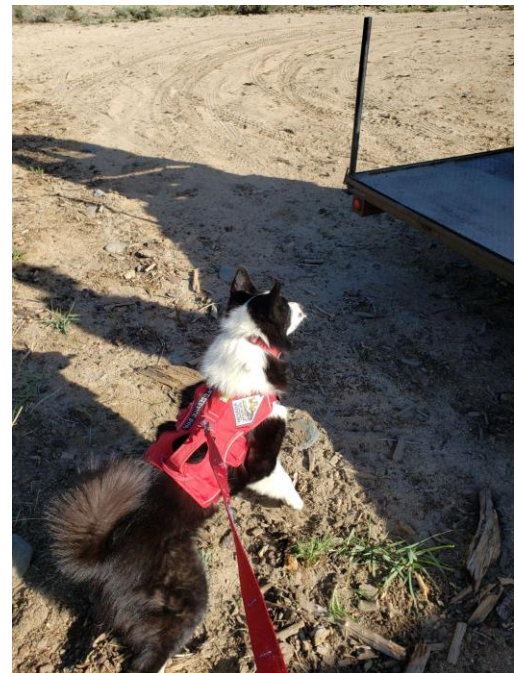
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remove the bear and relocate it. I learned how to manipulate the traps and handle a bear that has been temporarily immobilized for data collection. Typical data collection includes the sex of the animal, estimated weight, overall health condition, a collar to track its movements (via GPS), and an ear tag to help identify the bear in the field. Once a bear has been caught, they will be moved to suitable habitat away from the original location. The Karelian bear dogs help put a little extra scare into the bear in hopes that the bear does not have negative interactions with the community. For a week during the summer, I was a part of the annual bear survey conducted in the local mountain ranges. These surveys provide further data on Nevada's Black bears and show possible annual differences in the population and health. Bears are Caught using a leg snare and are immobilized during data collection. Setting the snares and learning how to do it was a neat experience.

Looking for good sites or common travel paths makes you think like a bear!

The GPS collars that are attached to bears provide movement data to biologists, but they are not designed to be permanent and will eventually fall off. When they do, they are retrieved using their last known location and a telemetry receiver. Through the summer, my partner Dalton and I would retrieve the collars weaving through

the drainages looking for the collar. These GPS collars also provide biologists with a unique point to inspect. When the Black bear dens during the winter, a different signal is sent to the biologists indicating that there has not been movement for some time. With most animals, this



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would mean that the animal has died. But, with bears, they are typically hibernating! Towards the end of my summer, I spent a few weeks doing den inspections. Armed with the GPS location, I set out to gather data on dens that were inhabited 1-2 years ago. The GPS locations gets me close; however, the bears can fit into a small opening (sometimes no more than 18 inches tall and 10 inches wide). Searching for that opening can be a difficult task. Black bears use different types of dens. Most individuals think of bear dens in caves. But they will use hollowed out trees, deep crevices in rocks, fallen trees, or just a windbreak. When I find the actual den, data recorded includes the type of den (tree/rock), the width/height of the entrance, depth, type of bedding material (pine needles/branches/leaf's), elevation, and whether the bear moved significant dirt to make the den larger. With this data collection, a better understanding of Nevada's Black bears can occur.



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At the beginning of the summer, I partook in the annual bobcat data analysis. During this analysis, regional biologists send in bobcat jaw samples that they processed during the year. This analysis is one of the most effective tools that NDOW has to monitor population trends of Bobcat in the state; this is a great example of Nevada sportsmen directly providing critical data transfer through their harvest. The harvested Bobcats are separated by unit of harvest and sex. Each jaw from a given unit is then boiled and further organized into adult and juvenile by assessing canine teeth. With this information, composition of male/female and adult/juvenile bobcats can be formed for management units.

While the focus of the Game Division is to manage common species like Mule deer, Antelope, and Elk, we are also responsible for animals that are considered typical trapping game. This includes the Beaver. The Beaver is an environmental engineer and is capable of

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dramatically changing its landscape. While this can be beneficial for wetlands, the blockage of water can cause flooding concerns for infrastructure surrounding the Beavers environment.



When infrastructure is compromised, a request to help remove the nuisance animal is submitted to the department. I was lucky enough to spend a few days learning how to trap Beavers in Northern Nevada. Traveling through the wetland system, I learned how to look for active dams and channels. With this information, Dalton and I placed Conibear traps. We were lucky enough to catch one within a day!

During early June, the Reno goose roundup occurs throughout the city. The round up is delegated to the USDA. In response to increased Goose vs. Plane collisions, geese are captured then transported away from major airports to a new location with suitable habitat. While the birds are molting, they have a reduced ability to fly effectively. This allows us to guide them into a pen with the help of fencing and extra hands. The birds are then banded for further data collection. The hardest part is handling the birds. They are surprisingly strong, and some can be a little mean!



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Spread throughout the summer, I conducted upland game bird surveys. Nevada provides excellent upland habitat for birds. From Sage Grouse in the lower valleys to Chukar in the Rocks and the Blue/Ruffed grouse in the mountains, there is no shortage of game. Conducting Ruffed grouse surveys was new for me. These birds, (the males) beat their wings together (drumming) making a surprisingly deep sound that can be heard in the stands of trees. In the Santa Rosa mountains (unit 051), moving from survey location to survey location listening for drumming early in the morning indicating the presence of a bird. I also conducted brood surveys of Chukar partridge in parts of Western Nevada. These birds can be found in many of the mountain ranges in the state. During the dryness of summer, they can be found next to water sources. While they prefer natural spring sources, but they will use cattle water and guzzlers to expand their range. When conducting brood surveys (surveys of the young), concentrating around the water sources provides an accurate count of the recruitment rate for the year. After the number of young birds are counted, they are separated into class #1, #2, #3, and #4. Class #1 birds are just hatched while class #4 birds are full grown birds that are not sexually mature. When the young birds are around class #3, they have a good chance of reaching full maturity and becoming part of the covey.

One of the high points of Nevada's wildlife is its success story about wild sheep. This was an animal that historically dominated our rugged landscape but was severely diminished due to the introduction of domestic animals and non-regulated hunting. Now, the state has some of the best numbers of sheep in the nation. The re-introduction of sheep was something that took a considerable amount of time and energy. However, data collection and survey of the animals is critical to maintain their health and success. Spending time doing sheep composition surveys has given me a greater respect for the species. Looking for lambs in the population gives the

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biologists an idea if the herd size is decreasing, staying neutral, or increasing. This summer, I spent time doing composition Surveys for California Bighorn sheep in the Santa Rosa and Calico mountains (unit 051). But I also came across the Desert Bighorns just outside of Reno.

While the state has a lot of suitable habitat for wildlife, most of the habitat lacks sufficient water for the wildlife to expand their range and thus, their population size. With the



work of conservation groups like NBU, the Nevada Department of Wildlife has been able to install man made water sites called guzzlers. Typically, these guzzlers can collect enough water and stay usable throughout the year. However, depending on the location in the state, some guzzlers have experienced a severe decrease in the amount of water due to environmental drought. While the drought is not as severe in the western part of the state as it is in the south,

certain guzzlers need extra water. Guzzlers that can be accessed with heavy pickups can be topped off with 275 gallons of water per truck. Dalton and I helped area biologist Jason Salisbury move water into big game guzzlers and water troughs located in unit 181. Hopefully, the wildlife that use these water sources such as Desert Bighorns, Mule deer, and Antelope will be able to stay in the area until substantial rains fill the drinkers of life back up!

Time is an interesting aspect of life. It is something that can be turned into a positive outcome, or it is something that you can let slip away. Time is always working on Nevada's wildlife and habitat constantly evolving the way we manage and learn. The amount of knowledge that I have gained working for NDOW during the summer and going to school the past three years has been immense. Part of who I am is because of this internship. The people I

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have met and the work I do is unique. Thank you to the Nevada Wildlife Record Book, Nevada Bighorns Unlimited, and the Nevada Department of Wildlife for making this experience possible. I hope with the help of time, we can make continued progress in Nevada's wildlife!