

Wildlife Management On Southern Colorado's Rangeland

By: Kolton Aubuchon

Representing the Colorado Section of the Society for Range
Management

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Abstract: Colorado boasts a diverse population of game animals and higher big game populations than many other states in the lower 48. But these big game animals, mainly focusing on elk, mule deer and whitetail deer, and pronghorn antelope, need to be managed in different ways for all of the events and livelihoods that exist in Colorado and across the west. Focusing on things like energy development, the drought that is being experienced across the western United States, and the simple matter of landowners managing their land to benefit the wildlife on it but also to benefit from the wildlife.

Introduction

Imagine this. You are sitting in a tree stand on a frigid morning as the sun is just starting to peak above the horizon and you are watching deer of in the distance. Or you are sitting up on a ridge listening to the elk bugle in the early morning air. These are situations that hunters experience every year but without proper management of our wildlife and the rangeland they live on these situations may become much harder to come by.

Energy development

Energy development is something that is a growing industry and an important topic in many western states. Colorado is not exempt from this issue. Energy development of any kind has an impact on our rangeland and wildlife but the impact is different with all of them (studyfracking.com). When talking about energy development everyone thinks about fossil fuels and greenhouse gases. I completely agree that the release of greenhouse gases is causing a major problem as some scientists suggest. Most people are aware of this theory. It is important to focus on the more direct impacts energy development has on Colorado's big game. Wind and solar farms take a large area and can disrupt wildlife habitat more than oil and gas wells that can be put in a much smaller area (Vaira). All

forms of energy development produce one thing in common, noise, but from personal experience animals can adapt to a thing like noise in their environment fairly quickly when they learn that it doesn't pose a danger to them. With energy development, especially natural gas drilling, there are strict guidelines that have to be followed and Colorado has some of the strictest laws. One requirement is to return the area of drilling back to predrilling conditions (studyfracking.com).

However, thoughtful rangeland management practices can be considered to minimize the impacts on wildlife habitat during the development process. One would be to locate roads as far from riparian areas and bottoms of drainages as possible so that they are outside of the riparian habitat. It would also be helpful to carefully manage vehicle and equipment traffic in the area of the rangeland being impacted by the energy development. Additionally, the use of temporary living camps to house the resources needed to support the drilling operations would minimize the negative impacts to the wildlife habitat on the rangeland ("Wildlife").

Drought

A drought is described by the Society for Range Management as, "prolonged dry weather when precipitation is less than 75% of the average amount (Christenson)." The western United States has experienced periods of drought of as long as Europeans have settled the west. But the recent drought has been one of the worse droughts since the 1950s ("Current Conditions in Historical Perspective"). Southern Colorado where I live is by far not the most severely affected area by the drought. California's current drought has been devastating to their rangeland. However, southern Colorado is currently classified as a severe drought area (Tinker).

Drought has a huge effect on the rangeland and livestock industry but it also has a large effect on wildlife. Based on my personal experience with the drought, where I live my family raises cattle, I have noticed that there are less large bucks occupying their habitat on the rangeland. Deer and elk in general are much more wide spread on our rangeland. I've also noticed that in the years that we've had less moisture the white-tailed deer have more broken antlers from fighting.

Drought can cause wildfires as we have experienced in Colorado. Depending on when they occur and their intensity, these wildfires can cause critical rangeland habitat to become unsuitable (Inley).

Due to the drought forage production has been reduced and many water sources have dried up and drinking water has become the main limiting factor for wildlife habitat on the rangeland. The reduced number of water sources can cause deer to congregate at water sources where disease carrying parasites (like midges) breed and the having warmer winters during a drought keeps for killing these parasites off which is leading to more deer with diseases like hemorrhagic disease and bluetongue viruses (Inley).

Many landowners that graze their livestock on rangeland use water tanks attached to wells or haul water. During drought years these sources of water can be hard to maintain, but in harsh drought these water tanks can be the only source of water for wildlife on rangeland habitat. Wildlife either has the choice to move or die (Taylor). So it would benefit the landowner to improve their water sources because it would benefit the wildlife and livestock. And adding wildlife ladders would make the tanks useable by more species of wildlife (and in some cases are required to be used in tanks) This would improve the quality of life for our ranchers.

Management plans for landowners

Landowners benefit from wildlife by being able to have them to view on their land. Many people that are new to the west put fences around their property when there really is no need for a fence. Fences can keep wildlife out of important areas of habitat like feeding or bedding areas. If a fence isn't needed put up something like a line of trees; this maintains your privacy and marks your property line but also forms new habitat for wildlife.

For improved rangeland management such as prescribed grazing, fences are often times required. If an exclusion is need for prescribed grazing management purposes the fence should be seven to eight feet tall, made of woven wire fencing, posts should be place anywhere from eight to 20 feet apart, with any top wires made visible with flagging and gates should be placed in corners so any entrapped animals can find an escape much easier (Hanophy).

It is recommended that ranchers install wildlife friendly fences when implementing prescribed grazing management strategies. A standard four wired barbed wire fence should have: Fencing wire placed on the side of the fence posts where the domestic animals are located; Smooth wire or rounded rail for the top, smooth wire on the bottom; Height of top rail or wire should be 42" or less; At least 12" between the top two wires; At least 16" between the bottom wire or rail and the ground; Posts should be placed at a minimum of 16' intervals; Gates, drop-downs, removable fence sections or other passages where animals concentrate and cross should be added; and use a rail, high-visibility wire, flagging or other visual markers for the top (Hanophy).

Hunting is another way that landowners can benefit from the wildlife.

Hunting can also be a method of control over wildlife because big game can cause damage to property like: fences, fields of crops, haystacks, and other valued rangeland vegetation needed for food & cover (Inley). Hunting can also bring in significant revenue

for landowners. Depending on where you are located and the quality of wildlife you have on your land you could charge up to \$5000 dollars for a deer hunt and most likely more for an elk hunt (Big Game Hunt Rates). Providing lodging and meals along with the hunting experience and bring in significantly more income.

Farmers & ranchers can also plant crops that can be used for feed for their livestock. When they harvest the crop they can leave a small strip of the crop unharvested so it can provide food & cover for many types of animals not just big game. These wildlife species can also be hunted for profit and can give wildlife an alternative food source that during the winter can help supplement their dietary nutrition. (This simple practice can also benefit the quality of the hunting on the ranch.). According to farmandranchguide.com

Crops to consider include annual rye, winter wheat or oats that are good for forage, weed suppression and erosion control. Red clover, partridge peas or hairy vetch are excellent to fix nitrogen in the soil, as well as for forage and erosion control. Brassicas such as turnips or radishes work well for forage, erosion control and to break up compacted soil because they have long taproots. All these are savored by wildlife as well as livestock (Rosmann).” Also according to this source turnips have other benefits like, “turnips make a great cover crop after grains, such as barley, wheat and rye are harvested. They also grow well in corn and soybeans if they are sowed in the early fall and have enough moisture and warm temperatures to get a good start. They also can withstand cold weather, drought, and are high in omega 3 fatty acids, fiber, vitamin C, and trace minerals. Lastly cattle, swine, sheep, and farm fowl love them, and they’re good for people to eat as well!

These practices while in my specific area are not done by a lot of people; me and my family does practice the practice of leaving strips of crops unharvested for wildlife and do plant crops like oats and turnips.

Conclusion

So whether you’re an engineer working for a gas company or wind farm, or a landowner or rancher you can benefit from wildlife. But they can only do that if proper management practices are implemented on the rangeland.

Educating landowners that following these practices can benefit them selves and the wildlife is key. And educating landowners is as simple as people like myself that do these practices teaming up with local NRCS offices, game and fish departments, or even local FFA and 4-H groups.

Landowners who manage their rangeland for improved wildlife habitat provide valuable benefits not only to the wildlife using their land but also to their livestock and to their personal quality of life.

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