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Eye on the Environment: Impacts to the Deer Population

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Deer hunters familiar with the Seeley-Swan could not help but notice a decline in the numbers of deer encountered while they were out this fall. As tempting as it is to debate which single factor might be at play, it is safe to say that there are many different things that have compounded to impact hunter opportunity this past season.

I have heard a lot of conversations about this topic and I will attempt to relate some of the more predominant opinions. In conversations with hunters one popular theory I've heard repeatedly is that the wolves are cleaning us out of house and home. A variation on this theory points to increasing populations of some predators, including wolves, cougars and coyotes.

Several people I've talked to have added concerns about the liberal hunting seasons we've had lately. The increased opportunity for doe harvest through general season A and B tags has taken its toll according to this line of reasoning.

Still others have surmised that the highway mortality has been a bigger culprit than we ever realized. Greatly increased traffic volume and speed coupled with increased habitat selection by deer in the developed portions of the valley floor have amplified the nature of this mortality factor. And maybe because the loss of deer to vehicle collisions is incremental, we've failed to appreciate the cumulative and escalating impacts on the deer population over time.

Others have identified habitat fragmentation from various factors including over cutting or forest conversion, development, roads, fire effects, natural and otherwise to be a large factor in declining deer populations.

And then there is a good argument to be had for putting the emphasis on weather. There was that long cold late winter and spring that suppressed green-up and put extra stress on animals just when they needed relief from hunger and cold.

In our work across the Seeley-Swan, we discovered many more deer carcasses than average for that time of year. Some were direct victims of cold and starvation, while others were killed by opportunistic predators like cougars, wolves and coyotes. Late winter conditions characterized by deep crust-covered snow favored coyotes as these predators can often stay afloat on the surface of the crust while the weakened deer struggle and break through.

The truth is that if you are a deer living in the Swan all of the factors mentioned above matter: weather, predators, traffic, and hunting regulations. In addition another overarching consideration has been surfaced by a number of experienced outdoors people that I know and this relates to the fact that the land itself has a lower carrying capacity for deer today than it did just a few decades ago.

Interested parties should strap on a pair of snowshoes mid-winter and head up Lion Creek to the mouth of the canyon for a first hand look at some of the dynamics facing both white-tailed deer and mule deer in our country. I suggest a route that takes you on a traverse along the base of the Swan Range northward towards Squeezer Creek.

My understanding and interest in this area and its importance to wintering big game was cultivated by several notable local Swan Valley mountain men too numerous to mention here by name. Their experience through many winters here gave them critical insight into the places and factors that sustain game in this country during tough times and pointed them to this foothill region as key to deer survival.

On a sub zero winter day, with deep snow on the ground, the needs of deer on this land become crystal clear. North of Lion Creek canyon, along the toe of the Swan Range the forest canopy has been 100% removed over a very large area in what used to be a ponderosa pine and douglas fir dominated cover type.

This opening precisely overlaps the area these seasoned men described as being the core of Swan Valley's most critical and heaviest used winter range. With no snow being intercepted by tree crowns, the snow gets too deep to allow for foraging or travel. Mid winter not even an elk or moose can cross the large opening, let alone a deer.

As you continue hiking, you will also find patches of complex, multi-storied forest. Here you will see many deer and elk beds, heavily packed trails and evidence of extensive foraging. Because they are effectively eliminated from the adjacent large openings, game become packed into these remaining forest patches.

The net effect is that plants and trees are over-browsed, further degrading the overall value of the winter range for deer populations now and in the future. It is safe to say that we are trying to support more animals per-acre in winter habitats like these, than we did just a few years or decades ago.

The remnant forest patches are suffering from other forces too including bark beetle outbreaks, overcrowding due to fire suppression, and a whole host of other forest health issues. This dynamic of both shrinking and declining habitats for big game is not just visible around the Lion Creek canyon, it is something that can be seen everywhere game is trying to winter across the Seeley-Swan..

The resilience of our deer herds to the normal impacts of weather, disease, predation, and human caused mortality has been greatly decreased by the loss of critical wintering areas. What this probably means is that we can not realistically expect deer production in the Seeley-Swan to be anything near past levels in the present or in the near future. It is one of the reasons that the Rocky Mountain Elk Foundation has prioritized our region for habitat improvement projects.

By using partnerships we can accomplish restoration projects on public lands that include weed management, stewardship logging, thinning, prescribed fire, and tree planting to benefit a diversity of wildlife and ecosystem integrity. Our local economy can benefit enormously from such restoration work, supporting jobs in the woods, jobs at the mills and jobs in all the businesses that supply and support such enterprises.

I'm sure that we will continue to debate and discuss all of the many reasons that our deer populations are down right now. I think we will benefit from resisting the temptation to put the blame solely on the predators, for instance, or on the liberalization of the hunting seasons. There are multiple factors at play here, and some, like the declining winter range habitat values are factors that are exacerbating the impacts of normal deer mortality from all sources.

In conclusion I would like to say that all the conversations I am hearing are an important and meaningful part of the public dialogue on deer population dynamics. It will take a robust exchange of ideas, information and experiences to decide collectively how best to move forward to restore the resilience and vitality of our game populations and the habitats they depend upon.