

Are predators killing your hunting opportunities?

by

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According to published reports and information available on various official websites, there were approximately 3.6 million mule deer on western ranges in 1960 - - a time when most mule deer populations were at all time highs. While today, that number has fallen to around 3.1 millions animals, a decline of 14%. In 1960, hunters in the eleven western states killed 764,000 mule deer, while in 2000 only 287,000 mule deer were taken, a decline of 62%. That is to say, hunter harvest, or offtake, has declined at a much steeper rate than mule deer populations in general. Clearly, mule deer harvest opportunities have fallen precipitously, but why?

I have been unable to locate an estimate for how many mountain lions there were 45 years ago, but the number was likely very small what with the widespread use of poisons, bounties, and the like. During the 1960's, though, cougars were re-classified as game animals throughout the West, and with protection, more than 36,000 cats now occupy mule deer habitat. For those who think this estimate may be high, I refer you to Logan and Sweanor's book on the Desert Puma, where they reported 31,400 mountain lions on western ranges in the early 1990's.

A number of researchers have estimated how many deer-sized ungulates a single lion kills each and every year, and on average, about 50 prey-animals must die to feed one cat. Thus, in total, mountain lions are killing 1.8 million ungulates each year. Of that number, approximately 1.2 million are mule deer. 1,200,000 mule deer killed by mountain lions versus 287,000 taken by hunters. If you do the math, lions are killing four times as many mule deer as sportsmen.

In my home state of Utah, the Division of Wildlife Resources estimates that we have 2,000 to 3,000 mountain lions. Taking the low estimate of 2,000, lions are killing approximately 100,000 mule deer a year. For comparison, Utah hunters harvested only around 25,000 deer the last few seasons. To verify the accuracy of these figures, I showed them to a wildlife professor, who has spent much of his career studying mountain lions in Utah. He agreed that the numbers looked about right, but then added that I should “stop ragging on his cats because coyotes and black bears were killing more deer each year than lions.” Needless to say I asked if I could quote him on that and his reply was “Hell No!!!”.

Another indication that predation pressure has increased is the change in the proportion of the deer population harvested by hunters. In 1960, hunters across the West took home 21% of the over-winter mule deer population each fall, but today the offtake rate has fallen to 9%. In Utah the 1960 offtake rate was 35%, but in 2003 it was only 8%. Biologists in Alaska and Canada have concluded that moose populations subjected to high levels of predation can support a human harvest rate of no more than 5%. While moose populations in Scandinavia, where large predators are absent, support a human harvest of 55%, i.e. predation can reduce hunter opportunities by 90% or more.

What about habitat? Isn't that the key to increasing hunter opportunities? Unfortunately, no. For if predator numbers are not controlled, habitat is relatively unimportant. In Alaska, where the Department of Fish and Game has conducted predator-prey research for many years, and where moose are the principle prey and wolves and grizzlies the main predators, Dr. Ward Tesla recently concluded that “from a management perspective...methods that improve range conditions

and by extension, moose productivity...have limited potential to reverse the decline of moose numbers when compared to measures that reduce predation.” In other words, the only way to increase hunter opportunities is to kill lots of wolves and lots of grizzlies. This study appeared in the scientific journal Ecology, a publication of the Ecological Society of America, which, if anything, is pro-predator.

Habitat largely irrelevant? I have to be kidding? Right? Well, Banff and Jasper National Parks in the central Canadian Rockies contain some of the most spectacular wildlife habitat in North America - - but today it is largely a gameless country due to predation. About 40 years ago, wolves recolonized parks that already contained grizzlies, black bears, and mountain lions. The addition of wolves to the system has just about eliminated moose and reduced elk populations by 80% or more - - and remember wildlife in Banff and Jasper is not hunted. Wolves have also caused elk herds to abandon large portions of their pre-wolf ranges. The habitat is still there, but the elk are not. And unlike our Park Service and Fish and Wildlife Service, who contend that predators have little effect on game populations, Parks Canada fully acknowledges what has transpired!!

As part of my research in Banff and Jasper, I have gone on four long horse trips into the back country with park biologists. In all, we covered more than 500 miles in 30 days and the number of mule deer we saw could be tabulated on two hands! One of the deer we encountered was at the head of the Snake Indian River - - 56 miles from the trailhead. To the north lies the huge Wilmore Wilderness. Chances are this mule deer had never before seen a

human. Nevertheless, she exploded from her bed beneath a stunted spruce in a huge subalpine basin when we were still 300 yards away. And then she ran, and ran, and ran for more than three miles, never stopping once to look back!! A wilder mule deer I have never seen!! Apparently, though, she had seen a wolf or two before - - for unlike moose that tend to stand and hold their ground when confronted by wolves, a mule deer's only hope is to run like the wind. Moreover, none of the mule deer we saw had any fawns at heel. Declining fawn to doe ratios are usually another indication of increased predation.

Then too, look at what has happened in Yellowstone. Over the last few years the Rocky Mountain Elk Foundation and other conservation organizations have spent several million dollars preserving and improving wildlife habitat in the Gallatin and Yellowstone River valleys north of the Park where large herds of migrating elk winter. Before wolves were reintroduced in the mid-1990's, Montana Fish Wildlife and Parks issued nearly 4,000 late-season elk permits for the Gallatin and northern Yellowstone. Today, that number has fallen to less than 400 all because wolves were added to a system that already contained grizzlies, mountain lions, and black bears - - - and Montana has indicated that no late-season elk permits may be issued in the future. In addition, several guides and outfitters north of the Park have gone out of the elk hunting business, as there simply are not enough elk left to hunt. The habitat is still there, but the elk are not, and hunting opportunities have fallen precipitously.

To appreciate the magnitude of this problem look at Colorado - - a state that has neither wolves nor grizzlies, as this is written. At last report there were approximately 300,000 elk in Colorado, which is three time more elk than exist in

all of Canada!! In addition, prior to wolf reintroduction, there were more elk in the Yellowstone ecosystem than all of Canada!! Canada has some great wildlife habitat, but elk hunting is definitely better in Colorado, where hunters took home nearly 70,000 elk last fall. More elk were killed in Colorado and Wyoming last fall than exist in all of Canada!!

But what about the recent westwide drought? Isn't that one of the reasons mule deer populations have declined? To answer this question, we need to look at some Arizona data. Based on tree-ring evidence, Arizona has recently experienced the worst drought in the last 700 to 1000 years and the fawn to doe ratio in Game Management Unit 22 was only 18 fawns per 100 does in 2002. Drought, right? Well, not exactly, for inside a predator-proof exclosure that Arizona Game and Fish has maintained on the Three-Bar Watershed since 1970, there were 100 fawns per 100 does!! In addition, mule deer density inside the predator-proof exclosure was ten times higher than were predators held sway. Drought may make deer more susceptible to predation, but predators do most of the actual killing. Over the last 35 years, does inside the exclosure have, on average, produced 225% more fawns, than mule deer outside the fenced area.

In addition, there is the issue of predator-mediated, or apparent competition. On many western ranges, elk numbers have doubled and then doubled again since the early 1960's. You might think this increase in elk populations would buffer the predation pressure experienced by mule deer, but you would be wrong. Instead, increasing elk populations only increase predation on mule deer. In a single-predator, single-prey system, as mule deer numbers fall, mountain lion populations eventually decline, as the cats run out of deer to

kill. But with alternative prey in the system, lions switch to killing elk - - thus, cougar populations do not fall and the cats drive the more vulnerable mule deer even lower. Counter intuitive, but nonetheless true.

Which brings us to another problem - - mule deer have a less efficient anti-predator strategy than other ungulates. Most sportsmen would not consider mule deer to be dumb or stupid, but they certainly are slow compared to other prey species. In southwest Alberta, mule deer and whitetails occupy the same habitat, termed sympatric, and the main predators are coyotes. Research has determined that the primary mortality factor on both deer species is coyote predation, but while this caused a decline in the mule deer population, whitetails actually increased, albeit slowly. Since the two deer were sympatric, this difference cannot be due to habitat or weather. Mule deer are simply less efficient at evading coyotes.

Mule deer and whitetails were also sympatric in a British Columbia study, but there mountain lions were the main predator. Again predation was the primary cause of mortality in both deer populations, but whitetails were better able to withstand the predation pressure. In fact, the whitetail population increased at 2% per year, while during the same period mule deer numbers fell at 12% per year. This is one reason why predation studies done on whitetails should not be cited as evidence that predators have little or no impact on mule deer.

So is there any good news for mule deer enthusiasts? Well, in Utah, sportsmen were instrumental in passing a constitutional amendment to thwart anti-hunting initiatives. In California, the initiative that banned mountain lion

hunting passed by a narrow margin, as did the Oregon initiative that banned the use of dogs to hunt lions and black bears. Under Utah's new constitutional amendment, wildlife related initiatives must now pass by a two-thirds vote, not a simple majority - - a standard that no anti-hunting initiative has met anywhere in the country. Subsequent to that constitutional change, Utah sportsman have pressured the Wildlife Board to liberalize mountain lion hunting seasons and to control coyotes on key mule deer fawning areas. According to Sportsman For Fish and Wildlife, these programs, in conjunction with on-going habitat improvements, are starting to pay dividends. Unfortunately, it seems that no good deed goes unpunished, for we now have people who are actively campaigning to restore wolves to Utah!!

In Alaska's Game Management Unit 2, hunters kill around 3,000 blacktail deer a year, while wolves kill as many as 12,000 deer a year. Alaska's wolves are subject to hunting and trapping and 40% of this wolf population is killed each year. Under the Endangered Species Act, however, wolves cannot be shot or trapped by the public anywhere in the lower 48. In addition, pro-wolf, anti-hunting advocates have just won a major federal lawsuit, that if upheld, mandates larger numbers of wolves in virtually every western state. A federal district court has also recently rejected Wyoming's attempt to limit the number of wolves in that state. To date, the only thing that has slowed the spread of wolves is that every wolf pack in Montana, Idaho, and Wyoming with livestock in its territory has, sooner or later, turned to killing cattle or domestic sheep and had to be controlled by federal agents - - I have this in writing from both the U.S. Fish and Wildlife Service and Wildlife Services. Yet another reason for mule deer

hunters to partner with the ranching community. Only by working with ranchers is there any hope of limiting wolf numbers and thus, of increasing mule deer hunting opportunities in the years ahead.