Good Intentions and Unintended Consequences

By Neil Anderson, FWP R1 Wildlife Manager, Kalispell

Why do people feed wildlife? When people are asked that question, often the response is: "I want to help," "I don't want them to go hungry," "I like to see them," or even, "They are my friends." Regardless of the response, the reasons people feed wildlife are typically based on emotions. It is a normal human response to want to help or to want to feel connected to an animal. After all, that is how we treat livestock and our pets. We feed them so they don't go hungry, we want to connect with them emotionally, we want them to be our companions, and we want to touch and hold them. Besides, what does it hurt? But is that how we should treat wildlife? Is that how we should connect to wild animals?

In 1995 Montana passed a law against "purposely or knowingly providing supplemental feed attractants in a manner that results in an artificial concentration of game animals that may potentially contribute to the transmission of disease." That law was further amended in 2011 (MCA 87-6-216) making it illegal to "purposely or knowingly attracting any cloven-hoofed ungulates, bears, or mountain lions with supplemental feed attractants," out of disease and public safety concerns. Why?

In 1994, a hunter in Michigan shot a white-tailed deer infected with bovine tuberculosis or TB. TB is a progressive bacterial disease that can infect wildlife, livestock, and people. TB can lead to lesions in the lungs, debilitation, emaciation, and depression. If detected in livestock, the herd can be quarantined until it is determined to be free of the disease or the herd may be depopulated. Feeding of deer was common in Michigan where TB was detected, and deer and cattle often shared feed sites. After that initial finding, Michigan began testing deer and cattle in the surrounding area and detected TB in deer within 5 counties. From



TB in Michigan white-tailed deer lungs (http://www.michigan.gov/images/deerribs_74486_7.jpg)

1994 – 2014 over 205,000 deer had been tested and 747 were found to be positive for TB, and 67 cattle herds/feedlots also tested positive for TB (http://www.michigan.gov/emergingdiseases/0,4579,7-186-25804_26354-76512--,00.html). Michigan's TB eradication program in wildlife is aimed at significantly reducing the density of deer in the 5-county area and eliminating feeding of deer (Schmitt et al., 2002). In livestock, the goal is to keep deer and cattle from sharing common food sites and testing for the disease in cattle herds, quarantining or depopulating the herd if TB is detected.



Deer being fed hay in the Flathead Valley resulting in high concentrations of animals

The total cost of Michigan's TB eradication program is not readily available, but by 2002 the program had cost the state nearly \$47.7 million dollars (http://www.senate.michigan.gov/sfa/Publications/lssues/BovineTB/BovineTB.PDF). Michigan is still fighting the battle with TB.

A similar story played out in northern Minnesota; TB was detected in deer and cattle. In order to eliminate the disease in deer, recreational feeding was banned and deer densities were drastically reduced using hunting, sharp-shooters, and aerial gunning

(http://www.michigan.gov/documents/emergingdise

<u>ases/Minnesota</u> <u>Wildlife Update 249473 7.pdf</u>). Through this heavy-handed approach, Minnesota was able to eradicate the disease, but at a huge cost – both to the wildlife resource and in dollars. TB is not believed to be capable of maintaining itself in free-ranging, wild deer populations. Feeding deer is a major factor that allows TB and other diseases to become established and spread in deer populations, and to be exchanged with livestock.

Closer to home we have a similar disease issue in elk and bison. Brucellosis, long considered a disease of livestock, was introduced into elk populations, likely by co-mingling elk, bison, and cattle. The disease was eradicated in cattle, but is being transmitted back to cattle by elk (Kamath et al, 2016). The feedgrounds in Wyoming have served as a reservoir for the disease, which has also established itself in free-ranging elk populations in Montana. Brucellosis is a major issue affecting elk and bison management in southwestern Montana, and the area impacted appears to be growing. The elk feedgrounds in Wyoming have helped to maintain brucellosis at a high level, but brucellosis isn't the only disease of concern.

Chronic wasting disease (CWD) has been creeping toward the Wyoming feedgrounds. Once there, it is expected to spread among elk using the feedgrounds due to shared food sources (https://thebullseye.media/coming-plague-chronic-wasting-disease-cousin-mad-cow-bearing-yellowstone-national-park-americas-famous-elk-herd/). Those elk also intermingle with elk from Yellowstone National Park and Montana. Once CWD is detected in the feedgrounds, it is only a matter of time before it shows up in Montana. Feeding elk and deer is a major concern for Montana due to disease concerns. Concentrating those animals at common food sources may be setting the entire population up for a major disease event that requires heavy-handed approaches, like those observed in Michigan and Minnesota, in order to control or eliminate the disease.

Concern over the potential impact to Montana's wildlife, livestock, human health, and economy is one of the reasons Montana has outlawed supplemental feeding of ungulates like deer and elk. Public safety is another, and why bears and lions are included in the law. Grizzly bears and black bears are attracted to human foods, which brings them in close contact to people and developed areas. Recently,

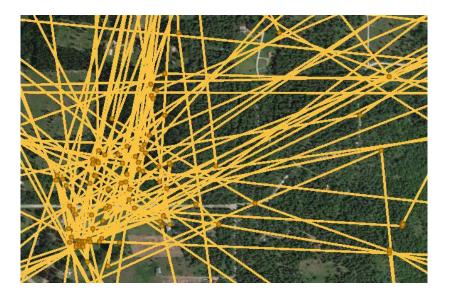


Figure 1. Locations of a GPS collared grizzly bear indicating frequent visits to a home in the general Kalispell area. It was determined that the resident was feeding bears.

a person in the general Kalispell area was cited for feeding bears. Tim Manley, FWP's grizzly bear management specialist for Region 1, had been receiving calls about grizzly bears in and around an urban area near Kalispell for several years. Tim had been working closely with residents to reduce attractants that might draw bears into the area. However, it wasn't until a grizzly bear was fitted with a GPS collar, which collects multiple locations per day

and sends that information to a biologist's computer, that it became clear something was going on at a particular home (Figure 1). This collared bear was spending a lot of time near the home. An FWP warden visited the homeowner and discovered he was feeding bears and had been doing so for some time. The individual was cited. His actions may have explained the number of bears observed in the area. Incidentally, the person feeding the bear lived close to a daycare. Even though the neighbors were putting out the unwelcome mat for bears, their efforts were being undermined by one person. In 2015, an elderly Kalispell woman died due to complications associated with an attack of a black bear in her home. Evidence suggested the woman had been feeding black bears, and one found its way into her home, where the attack occurred. All evidence suggests the bear was small, possibly a yearling. Even small bears can inflict a lot of damage if they feel threatened. By drawing bears into food sources and closer to people, the potential for an encounter increases. Feeding bears not only endangers the people doing it, it endangers anyone living in or utilizing the area. How often would you be willing to hike down a trail or path in your neighborhood if you knew someone who lived near the trail was feeding bears? The problem is, often you won't know until there is a problem.

Although mountain lions aren't typically drawn to human foods, the prey they seek can be. Feeding ungulates, like deer, creates a tempting situation for a mountain lion. When deer are fed in populated areas, this may also draw mountain lions to their food source and puts them in close proximity to people. These are places where we live and hope lions will avoid.

Feeding ungulates, even deer, can lead to conflicts with people. Property damage, damage to trees and gardens, and increased potential for vehicle collisions are all things that can occur when deer are fed. When those same deer become habituated to people and start seeing them as a source of food, they can become a public safety threat. Our desire to be close to wildlife, even getting them to

eat from our hand, often leads to their associating us with food rewards. Deer that approach people for food can become aggressive and injure people and pets. Deer that seem docile and friendly one day, can become aggressive the next. The potential for aggressive behavior can increase with the onset of

rut or if fawns are present. Even deer can be unpredictable.

When ungulates and bears become habituated to people, approach people looking for food, or enter homes or businesses, there is little we can do with these individual animals, and they are removed from the population.

There is nothing enjoyable about having to destroying these animals, but



because of the potential for them to injure someone, we don't have a choice. Often the person, whose job it is to remove this animal, is ridiculed and even threatened. The belief is that this deer, elk, or even a bear would never hurt anyone, yet it does happen. As a state agency, we cannot wait until a person is injured to respond. Although some people draw a distinction between bears and deer, and don't see deer as a public safety threat, a deer approaching people and begging for handouts ceases to be a truly wild animal; it becomes a problem. That deer will be removed, the death sentence being sealed by the people attempting to domesticate it. Yet, they aren't domestic animals, and that makes them unpredictable.

Yes, Montana has a law banning the supplemental feeding of ungulates, bears, and lions. If you choose to feed these animals, there is a chance you may not be caught. But is the risk of being caught the reason you shouldn't feed? In harsh winters, like the one we are experiencing, it is even more tempting to feed. It is hard to see what deer and elk are going through and not feel compelled to do something. In reality, this is a process that has taken place for thousands of years. It can seem cruel, but having hard times for wildlife is part of an important cycle. When ungulate populations are high, they consume forage at a high rate. That forage can be limited, especially on winter range. Periods when populations are low allows that forage to recover. Maintaining artificially high numbers of ungulates on the landscape leads to habitat degradation and ultimately lowers the number of animals the habitat can sustain.

For many Montanans, their connection to wildlife is centered on the fact that they are truly wild, don't depend on handouts, and live in some amazing places. Whether you hunt, like to see them, or just take comfort in knowing they are there, many of us respect wildlife for what they are, wild animals. There is something special about wildlife, how they evolved to live in our harsh environments – their independence. Wildlife are an important part of our culture, economy, and society. Perhaps there is a fundamental question that each of us needs to answer when contemplating feeding that deer, elk, or bear. At what point does wildlife cease to be wild?

Literature Cited:

- Schmitt, Stephen M.; O'brien, Daniel J.; Brunning-Fann, Colleen S.; and Fitzgerald, Scott D., "Bovine Tuberculosis in Michigan Wildlife and Livestock" (2002). *Michigan Bovine Tuberculosis Bibliography and Database*. Paper 114. http://digitalcommons.unl.edu/michbovinetb/114.
- Kamath, P. I., J.T. Foster, K.P. Drees, G. Luikart, C. Quance, N.J. Anderson, P.R. Clarke, E.K. Cole, M.L. Drew, W.H. Edwards, J.C. Rhyan, J.L. Treanor, R.L. Wallen, P.J. White, S. Robbe-Austerman, P.C. Cross. 2016. Genomics reveals historic and contemporary transmission dynamics of bacterial disease among wildlife and livestock. Nature Communications.

 (www.nature.com/naturecommunications). DOI:10.1038/ncomms 1148. 10 pp.