

Feeding wildlife: A recipe for disaster

By Walter Cook, Scott Smith
and Jim Logan

Many people enjoy feeding wildlife. Feeding brings wildlife closer and makes them easier to watch. Feeding makes it possible to watch more wildlife, and it makes people feel like they are helping wildlife. But feeding is actually very detrimental to wildlife.

Feeding is most common in winter when well-intentioned people think wildlife need extra energy, but data collected over the last 50 years indicates that feeding causes a great deal of harm and may actually decrease winter survival. Feeding increases disease transmission, causes habitat degradation, can upset the normal digestive process, interferes with wildlife social structure, and may attract predators and other problem wildlife.

When animals are fed, they tend to congregate in unnaturally high numbers. This high density allows diseases to be transmitted much more quickly. Anyone who has children in school realizes that concentrating children together in a classroom promotes the spread of disease. This is because it brings kids from different areas—kids who have been exposed to different diseases—together. Additionally, the close proximity of children in a classroom allows diseases to spread very rapidly. Feeding wildlife does the same thing. It brings wild animals together that may be carrying different diseases and allows diseases to spread more easily.

Some of the diseases that occur when people feed wildlife include bovine tuberculosis, brucellosis, chronic wasting disease, tapeworms and other parasites and canine distemper.

Bovine tuberculosis (TB) does not currently exist in Wyoming wildlife or livestock. This disease

is caused by a bacterium, and it causes weight loss, coughing, difficulty breathing, fevers and other problems. The disease is spread when the bacteria are coughed out of the body. Because of this, the disease is poorly transmitted when animals are spread out, but when animals are concentrated by artificial feeding, the potential for an outbreak exists.

In Michigan, there have been major problems with TB in white-tailed deer herds. The problem has existed almost exclusively in association with feeding deer. According to Steve Schmitt, a veterinarian for the Michigan Department of Natural Resources, feeding increases direct transmission from deer to deer as well as indirect transmission when bacteria are deposited on feed. TB should not only concern wildlife enthusiasts. The disease may infect domestic livestock as well as humans. According to Schmitt, there have been at least four cattle herds infected with TB from deer in Michigan, and the state is almost certain to lose its TB-free accreditation.

Feeding and baiting has been banned in the area affected in an effort to control the outbreak, but once this disease is well established, it is very difficult to completely eradicate it from a wild population. Thus, it is very important not to allow TB to become established in Wyoming wildlife. One of the best preventative steps in this effort is not to feed wildlife.

Bovine brucellosis does exist in some of Wyoming's elk and bison and is most common where they are fed. This disease, caused by the bacterium *Brucella abortus*, may infect elk, bison, cattle, and on rare occasions, people. In ungulates, such as elk, it causes pregnant females to abort their fetuses. In humans, it causes severe flu-like symptoms and is commonly called undulant fever. Billions of bacteria are shed with the aborted fetus, but the bacteria generally die off within a few days to several weeks depending on weather conditions. Additionally, the dam or scavengers generally

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consume the fetus shortly after an abortion occurs. Because of this, transmission is very inefficient under natural conditions. When wildlife are fed, transmission becomes very efficient. Cattle in Wyoming are currently brucellosis free, and there is concern that elk or bison may transmit the disease to livestock.

There are 23 feedgrounds in northwestern Wyoming where elk are fed in the winter. The National Elk Refuge was the first elk feedground. Brucellosis has been documented in 19 feedgrounds and almost certainly exists in the untested feedgrounds. The disease is virtually nonexistent in elk herds that are not fed or closely associated with herds that are fed. There is no doubt that feeding elk has allowed the disease to persist. Likewise, there is little doubt that if feeding were discontinued and the elk used native winter ranges, the disease would eventually disappear over time.

Biologically, it would be preferable to close existing feedgrounds. Unfortunately, much of the historic winter habitat for elk has been lost. Closing feedgrounds would require a great reduction in the number of elk in the Greater Yellowstone Area. There is tremendous public, political and economic pressure not to substantially reduce these elk populations. Because of this, it is unlikely that feeding can be discontinued any time soon. Still, concerns over brucellosis are one of the main reasons the Wyoming Game and Fish Department opposes the creation of additional feedgrounds.

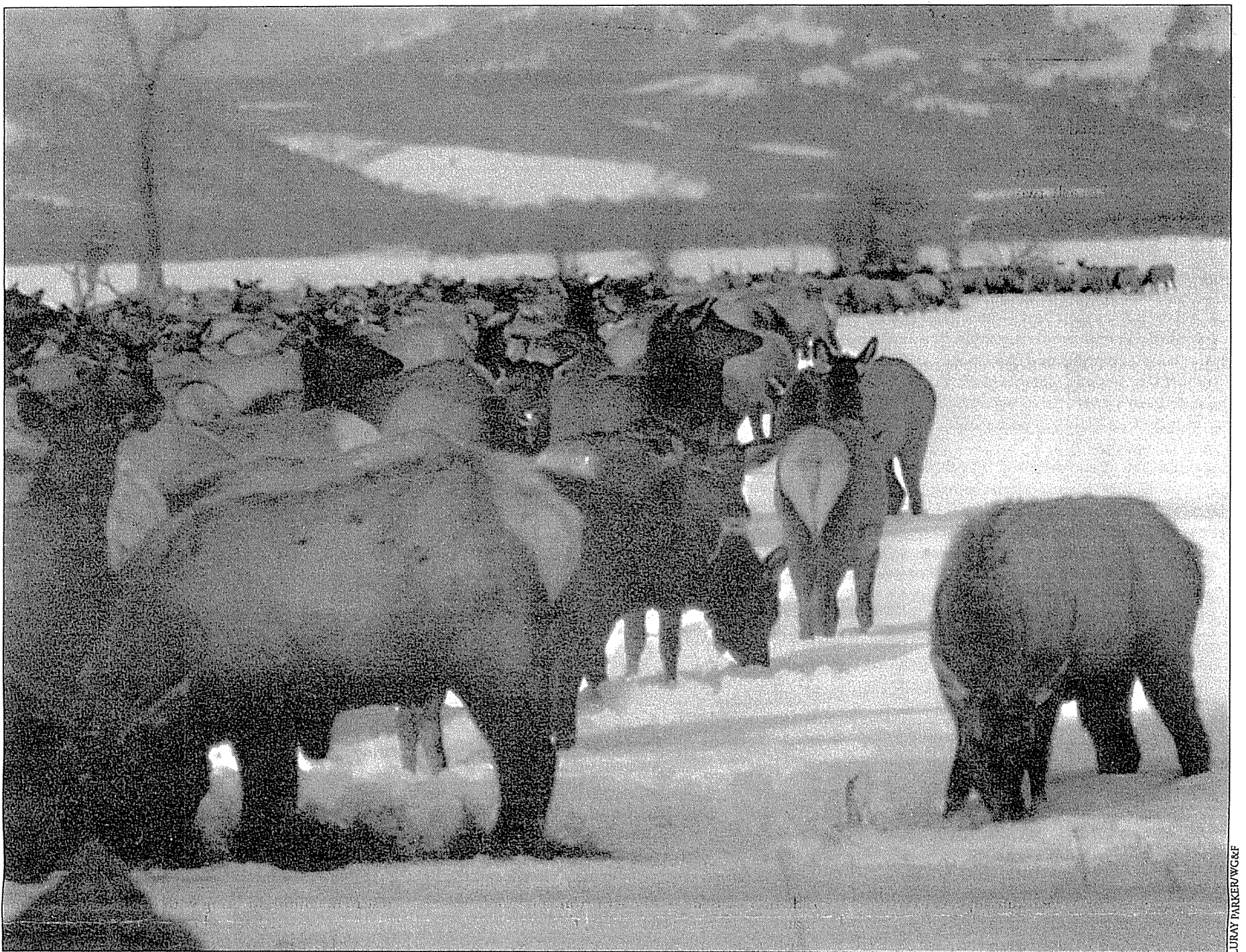
Chronic wasting disease is a disease of deer and elk that is limited in the wild to southeastern Wyoming and northeastern Colorado. This disease is caused by an infectious protein (prion) and causes gradual weight loss, abnormal behavior and death. There is no evidence that the disease can spread to livestock or humans, but it may have the potential to severely impact deer and/or elk populations. It is currently unknown how the disease is transmitted, but we do know that it is transmitted more efficiently when deer and elk are concentrated. Because there is no known way to control the disease once it spreads, the feeding of deer and elk, especially in southeastern Wyoming, is discouraged.

Every winter, Game and Fish is notified about dozens of dead or dying deer and antelope fawns. These fawns are weak, emaciated and often have diarrhea. Ironically, they have usually been fed. On necropsy, enormous numbers of tapeworms and other parasites are discovered. Often, there are so many tapeworms that the intestines are completely blocked off—no food material can get through. Overcrowding, which occurs when deer and antelope are fed, causes parasite egg numbers to

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• This mule deer fawn on Garden Creek near Casper starved on a doorstep with a belly full of popcorn. Artificial feeding concentrates wildlife and often results in wild animal deaths.



• Game and Fish operates 23 elk feedgrounds in northwest Wyoming. Brucellosis has been documented in 10 feedgrounds and probably exists elsewhere.

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build up in the soil and leads to heavy parasitic infections. This is one reason there is significant increased fawn mortality in deer herds that are fed.

Although feeding deer and elk is more common in Wyoming, some people feed raccoons, skunks and other carnivores. This, too, can cause disease problems for wildlife, domestic pets and people. In the past year, raccoons have died of canine distemper with stomachs full of dog food. Distemper is caused by a virus and causes inflammation and discharge of the eyes and eyelids (eyes may even be "glued" shut), loss of appetite, poor condition, behavioral changes and death. Canine distemper is often fatal and, as the name implies, may affect dogs. Raccoons and skunks may also carry the fatal viral disease rabies. Though feeding doesn't necessarily increase transmission of rabies, it does bring wildlife into areas where they are more likely to contact people or their pets.

Other diseases of concern when wildlife are fed include Johne's disease, necrotic stomatitis, foot rot and pasteurellosis.

Infectious diseases are not the only problems caused by feeding wildlife. When wildlife are fed they congregate in unnaturally high numbers. When concentrated they can cause severe damage to native habitat. Under normal conditions animals are fairly well dispersed over their winter range and will not deplete forage in any particular area. When fed, wildlife tend not to travel far away from the feeding site. Consequently, they eat and trample the native vegetation, often until only bare soil remains.

Feeding an unnatural diet is also hard on many wildlife species' digestive systems. Ungulates in particular have rumen microorganisms adapted to help them digest their natural diet. When fed an

unnatural diet such as hay or corn these organisms can die off. This prevents the animal from being able to properly digest any diet. As a result, animals may starve because they are being fed. Because elk are primarily grazers while deer and antelope are primarily browsers, elk are generally better able to adapt to an artificial hay diet. Studies in Colorado and New York indicate that starvation is much more common where deer are fed in the winter.

Feeding also interferes with the social structure of many wildlife populations. Most groups of wild animals have a hierarchy with larger, older animals being dominant. This pecking order means that dominant animals generally get the best forage. When fed, these individuals prevent the young and weak from getting to the feed line. Does have even been documented preventing their own fawns from feeding. In a feeding situation, big, healthy animals get the majority of the feed, while those most needing additional nutrition are left out. Feeding also brings animals together that would normally be separate. Animals from different herds, which normally don't compete in the winter, may compete at a feeding site. This may lead to debilitating injuries for many animals.

Predation also becomes a problem at feeding sites. Predators are attracted to areas with high concentrations of prey. Access trails to feeding sites make it easy for predators to get into areas where snow would normally prevent their occurrence.

Dogs often chase deer around feeding areas. Though dogs may not always directly kill the wildlife they chase, forcing game to run through heavy snow may be so debilitating that they can't make it through the winter. Feeding sites also attract coyotes and mountain lions. Not only can this increase predation of wildlife, but it can also

cause pets and people to be attacked and even killed.

Feeding can also attract other nonpredatory wildlife that cause problems. Moose have been attracted to feeding sites intended for deer in some Wyoming towns. Moose can become quite aggressive and dangerous to humans. This has become quite a problem. When unwelcome wildlife become addicted to certain areas, the only way to alleviate the problem is to remove the offending animal. When there is no acceptable location for the animal, it may have to be killed.

Finally, it can be questioned whether feeding wildlife is even ethical. Wildlife have evolved and adapted over millions of years to exist on natural forage. A given amount of habitat can only support a given number of animals. Often, we destroy habitat, which then leads to wildlife dying of starvation. Feeding allows us to think we are compensating for habitat destruction when, in fact, it makes a bad situation worse. We need to face the fact that the only way to offset habitat destruction is via habitat improvement.

The evidence is undeniable. Wildlife are adapted to survive winter without supplemental feeding. Feeding causes many more problems to wildlife than it solves. Additionally, it can be harmful to humans and domestic animals.

Please, enjoy wildlife from a distance and refrain from feeding them. If you really want to help wildlife make it through the winter, get involved with those private organizations dedicated to purchasing and protecting winter habitat.

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