

# Wolf Depredation

## Wolf Depredation Control in Minnesota

by Bill Paul

Minnesota's wolves are currently listed by the federal government as threatened, which allows authorized federal personnel to kill wolves that have killed domestic animals. Since 1986, the U.S. Department of Agriculture's Wildlife Services (USDA-WS) program has been the federal agency responsible for managing wolf-livestock conflicts in Minnesota.

Livestock producers or pet owners who suspect that wolves have killed or injured their animals contact their local Minnesota Department of Natural Resources (MDNR) conservation officer or USDA-WS for assistance. MDNR or USDA-WS personnel try to investigate wolf depredation complaints within 24-48 hours to minimize loss of evidence needed for verification of wolf damage. Carcasses can deteriorate rapidly during the summer or be consumed quickly by wolves.

USDA-WS personnel differentiate wolf depredation from depredation by other predators or natural mortality and scavenging, by using the following criteria:

- Wolf tracks at kill sites are easily distinguishable

from those of most other predators, except large dogs.

- Wolf attacks on large livestock are characterized by bites and large, ragged wounds on the hind quarters, flanks, and sometimes the upper shoulders. Attacks on young calves or sheep are characterized by bites on the throat, head, neck, back, or hind legs.
- Wolves usually begin feeding on the viscera and hindquarters. Much of the carcass may be eaten, and large bones chewed and broken. The carcass is usually torn apart and scattered with subsequent feedings.
- Wolves and coyotes may show similar killing and feeding patterns on small livestock. Where wounds are present, the area is skinned so that the size and spacing of the tooth holes can be examined. Wolf

canine tooth holes are about a quarter of an inch in diameter, while those of a coyote are about an eighth of an inch.

- Wolves will scavenge carcasses of livestock that have died of natural causes. It is important to distinguish between predation and scavenging. Evidence of predation includes signs of a struggle, and hemorrhaging beneath the livestock's skin in the throat, neck, back, or hindquarter area.

Once personnel verify that wolves have killed livestock, control measures can be initiated. The livestock producer is also then eligible for compensation of up to \$750 per animal killed, administered by the Minnesota Department of Agriculture.

USDA-WS uses both non-lethal and lethal methods to resolve wolf-livestock conflicts. Non-lethal methods include anti-predator fencing, strobe light and siren devices, livestock guarding animals

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Bill Paul investigating a possible wolf depredation.

USDA.

(guard dogs, llamas, and donkeys), and improvements in animal husbandry practices, such as proper disposal of dead livestock carcasses. Lethal control measures include foothold traps, neck snares and shooting.

Trapping is usually conducted for 10-15 days and is restricted to within a half mile of the farm's boundaries. Control devices are checked daily, and captured wolves are shot. Selective removal of livestock-depredating wolves in Minnesota has helped resolve wolf-livestock conflicts while facilitating wolf recovery. ■

*Bill Paul is the Assistant State Director for the USDA Wildlife Services program in Minnesota, U.S.A., where he coordinates federal wolf depredation control activities. He has been involved with wolf research and control programs in Minnesota for 25 years under both the U.S. Fish & Wildlife Service and USDA and has helped train American and foreign wolf researchers and control personnel in wolf capture techniques and management of wolf-livestock conflicts.*



*A trap set in the ground to catch depredating wolves.*

## Non-lethal Wolf Depredation Control Methods: How Well Do They Work?

by Liz Harper

**W**olf depredation is a concern wherever wolves co-exist with livestock.

Lethal methods are most often used in response to depredation, but several alternative methods have also been tried. These methods include the use of guard animals, electric fences, sirens and strobe lights, improved animal husbandry practices, wolf translocation, electronic training collars, sterilization, diversionary feeding, taste aversion and flagging ("fladry").

Guard animals, such as dogs and llamas, can be useful predator deterrents, because they bond with livestock and help protect them by either chasing away predators, or by deterring predators with their presence. For example, llamas have an inherent dislike of canids and will attempt to chase them away. They can also provide passive protection by being alert to predators. A predator that has been detected may leave the area. Although this may work well for coyotes and foxes, because of the size and pack nature of wolves, llamas (as well as guard dogs) are at risk of being killed by wolves.

Guard dogs have long been used in Europe, but their success depends on the shepherding techniques in those countries. Shepherds remain with the flocks and work with the dogs to protect the stock. In the United States, where livestock often



*Bill Paul installs a lighting and siren device in an attempt to scare away depredating wolves.*

move unattended, guard dogs have not been shown to reduce depredation by wolves.

Electric fences can be used to exclude predators; however, 6-7-foot-tall woven-wire fences with electrically charged wires along the top and bottom are required to keep wolves out. This may work well for small barnyards or chicken coops, but for larger pastures, these are costly to build and maintain. They also interfere with movement of other animals such as deer and pronghorn.

Sirens and strobe lights may be placed around a pasture and set to act at regular or irregular intervals or when a radio-collared wolf is in the area (Radio Activated Guard box). They may reduce depredations temporarily by scaring the wolves from the area, but wolves can become habituated to these deterrents and ignore them, or avoid them to enter a pasture. Once habituation occurs, depredations may recur.

There has long been a belief that wolves prey on livestock because of poor husbandry practices. However, a recent study in Minnesota could find no changes in animal husbandry practices that were certain to prevent wolf depredations.

## What do you think?

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