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Improved Technologies and Nonlethal Techniques for Managing Predation

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National Wildlife Research Center Scientists Explore Innovative Ways to Protect Livestock from Predators

Wildlife Services' (WS) National Wildlife Research Center (NWRC) is the only Federal research facility devoted exclusively to resolving conflicts between people and wildlife through the development of effective, selective, and acceptable methods, tools, and techniques.

The need for acceptable and effective predator management tools is imperative in order to reduce livestock losses and protect public safety. Livestock predation costs producers millions of dollars each year, and incidents of predator attacks that injure or even kill people are becoming more and more frequent. Concerns for public health and safety, as well as animal welfare, have pressured wildlife managers to seek immediate solutions when predators cause conflicts. Research conducted by scientists at NWRC's field station in Logan, UT, is focused on finding alternative nonlethal tools and techniques to prevent predatory behavior through the use of disruptive (frightening) and aversive (behaviorally conditioning) stimuli. In addition, NWRC researchers are also developing improved methods for capturing and monitoring predators.



Applying Science and Expertise to Wildlife Challenges

Capture Devices—Capture technology has been largely reliant on tools and materials that were developed hundreds of years ago.

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Major Research Accomplishments:

- WS developed the "Radio-activated Guard" frightening device for reducing livestock losses.
- WS designed, fabricated, and evaluated unique electronic training collars and surveillance technology to prevent carnivore predation on livestock.
- WS instigated development of real-time, satellite-driven animal and capture-device monitor prototypes.
- WS developed, tested, and publicized new capture systems technologies for wildlife.

Although effective, some of these capture methods have raised concerns about animal welfare. In response, NWRC scientists have developed and tested new and alternative capture devices and restraining methods that minimize injury to captured animals. Behavioral research is also underway to study visual, mechanical, and odor cue attractants that will change capture technology.

Frightening Devices—Research is being conducted to develop frightening (lights and sirens) devices to keep predators away from areas containing livestock. Scientists at NWRC are responsible for

"Solutions to Problems Depend Upon Knowledge Which Only Research Can Provide"

