## Non-lethal predator control program could provide assistance to Lassen County ranchers LASSEN TIMES

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For hundreds of years, ranchers have been forced to address issues of protecting their livestock from natural predators, sometimes in violent and nonselective manners. But in recent years, a better solution to the problem seems to have emerged, a solution that might help solve an ongoing problem for many ranchers right here in Lassen County.

Project Coyote, a nonprofit based in Marin County, is an organization that has sought to find a nonviolent solution to the problem of livestock predator control.

Founding Director Camilla Fox said the goal of Project Coyote is to champion progressive management policies

to reduce the number of human-coyote conflicts and the number of coyotes destroyed by helping create and implement innovative, effective solutions to predator control. She said the organization has seen quite a bit of success with cooperative problem solving ideas for livestock protection solutions like improved fencing and guard dogs, which are provided to ranchers by redirecting the funds that have traditionally gone to lethal, less effective predator control.

Fox, who has been working to protect wildlife and wild lands for the past 15 years, both in the U.S. and internationally, holds a master's degree in environmental studies with a focus in wildlife conservation, policy and ecology. She has worked as a project director for the Animal Protection Institute and wildlife consultant for the Animal Welfare Institute prior to founding Project Coyote.

She said ranchers who raise sheep or chicken are those who see the most conflict with coyotes, and for years, this problem has been solved by both ineffective and lethal means implemented by a federal trapper provided by the USDA Wildlife Services Program.

Typically, the USDA will match 40 percent of the funds available for a specific counties' predatory animal control program, giving counties incentive to use a federal trapper. The program kills more than 2.4 million animals each year, including more than 120,000 native carnivores.

The annual cost to taxpayers is \$115 million, to fund a program using methods that have come under increasing public scrutiny as questions of ethics and effectiveness have been raised.

Fox stresses she recognizes the importance of listening to the other side of the issue and understanding that ranchers are simply trying to protect their livelihood, but also the importance of working with them to implement more effective, non-violent means of population control.

The traditional solution to the problem has been to randomly kill of as many members of the coyote population as possible, using methods such as strangulation neck snares, poisoning, steel-jaw leg hole traps and aerial gunning.

Not only are these methods an inhumane and nonselective attempt at population control, but they are also terribly ineffective, said Fox.

"Scientific research over the last 30 years has shown that lethal predator control for population control does not work; killing predators has not diminished livestock losses. When the population is reduced, the remaining population can rebound in a fairly short amount of time, and the reasoning behind the original efforts is completely cancelled out."

Fox explained when massive thinning of the population occurs, the natural structure is disrupted, and coyotes will begin to mate at an earlier age and have larger litters of healthier pups, which have a much greater chance of surviving to breeding age. Coyote pups generally only have a 5-20 percent chance of making it through their first year, but when the population is reduced, that percentage is raised significantly, due to lowered competition.



She also said that when the population is thinned, both alpha and beta female coyotes will begin to breed, which is unique because typically, alpha coyotes do most of the hunting and the mating in an area, and beta coyotes roam and do not breed until finding a home territory.

Between increased mating and larger litters, studies have shown the population has roughly stayed the same over the years despite the lethal and indiscriminate efforts of trappers, and the problems with predator-livestock conflicts continue for ranchers.

## **Ecological benefits**

Another reason to move on to non-violent methods, said Fox, is to allow ranchers to actually benefit from coyotes and their ecological role in the environment.

"When you are employing nonselective methods, you are also taking out non-problem coyotes, coyotes which can actually be beneficial to a rancher," said Fox.

Fox said a non-threatening coyote is not only a great form of rodent control, but they will also become territorial, and will keep other predators and problem coyotes away from livestock areas.

Obviously, she said, there is no way of spotting a potentially-threatening coyote from non-threatening one, which is why Fox advocates the use of non-lethal methods of control such as improved fencing and guard dogs or llamas. These methods have proven to reduce conflicts between livestock and coyotes while still allowing ranchers to reap the ecological benefits of having coyotes around.

In general, the bulk of a coyotes' diet consists of fruit and smaller animals like rodents and rabbits. During times of intense coyote removal, there is an increase in the population of these smaller animals, causing further problems with the disruption of the food chain.

"Coyotes can have a top-down effect on ecosystems by regulating the numbers of smaller predators, such as foxes, skunks, and raccoons," said Fox. "Killing coyotes in large numbers can set off ecological chain reactions with profound implications."

A 1999 study backs up Fox's research, showing the absence of coyotes allowed smaller predators to thrive, leading to a sharp reduction in the number and diversity of scrub-nesting bird species. Comparable studies of rural areas have shown coyotes have a similar effect on waterfowl and songbirds.

A 2003 article in National Geographic Magazine looked into the increasing use of llamas as an effective means to protect farm animals and found the animals instinctively guard against coyote attacks, "possibly because their natural herd instincts have wired them to chase off predators."

Professor Emeritus at Iowa State University, William Franklin studied the phenomenon, and discovered it to be enormously effective. According to the article, Franklin found "more than half of the llama owners he contacted reported 100 percent reduction in their predator losses after employing the animal as a guard."

## The Marin County model

In 1999, Fox, in conjunction with Marin County Agricultural Commissioner Stacy Carlsen, began work based on Fox's masters thesis research for an alternative program unlike any other in the nation, aimed at non-lethal predator control for Marin County.

At the time, the county was spending \$60,000 a year in predator control, but it was not working. In the last year of federally assisted trapping, 100 animals were killed, but most were badgers and foxes, which do not threaten livestock.



The USDA-WS had matched the \$30,000 Marin put forth for predator control, providing half of the yearly cost, but after the effectiveness of methods like poisoning and neck snares and the use of taxpayer dollars to fund these methods came under public scrutiny, the USDA-WS still refused to stop employing these techniques.

The Marin County Board of Supervisors and Agricultural Commissioner's office voted in 2000 to redirect the funds that would be used to match the government program to implement the alternative, non-lethal program.

Eighteen ranchers participated in the program, representing 7,500 of Marin County's 10,000 sheep. The county even agreed to reimburse ranchers for losses of up to 5 percent of a herd for the trial program.

Fox said there are no matching federal funds if a county decides to take a non-lethal approach as Marin County did, but in the end, the risk paid off.

In the program's first six years, livestock losses fell 2.2 percent, and the program actually cost \$10,000 less annually than the previous lethal, non-selective program.

The Marin County Livestock Protection Program has since set an example for ranchers throughout California for an effective, humane and ecologically sound way of dealing with livestock-coyote conflicts. Today, more than 80 percent of all Marin County sheep ranchers participate in the program, and data shows that livestock losses have declined markedly since its implementation.

"It has provided a model by which other counties can emulate to meet their needs," said Fox.

## Lassen County benefits

Fox said the program would be ideal for Lassen County ranchers, who would benefit from the effectiveness of non-lethal predator control, and the program would cost no more than is already spent by the county on predator control programs.

According to a May 2007 Lassen County Agricultural Commissioner report to the Lassen County Board of Supervisors, \$66,404 was spent in the 2007/2008 fiscal year on predatory animal control.

A total of 935 animals were killed in 2005/2006, and total economic losses due to predatory animal damage amounted to at least \$54,000. The report also states, "It is believed actual damage exceeded this amount by a substantial amount."

The program is funded through the Lassen County General Fund, and through a percentage provided by the USDA-WS as incentive to use a federal trapper.

An alternative program for the area would mean a forfeit of the USDA-WS funds, but grant funds are available through AWI's Christine Stevens Wildlife Award grant program for farmers looking to implement an alternative program for predator control. The grant was established in 2006 to support research efforts to discover new techniques, test existing products and devise new strategies to humanely resolve or reduce wildlife conflicts. Applications are accepted annually for grants up to \$10,000. For more information, visit awionline.org.

Grants are also available through Animal Welfare Approved, an AWI program founded in 1951 to reduce the pain and fear inflicted on animals by people. The organization also offers a free certification program for ranchers to become AWA approved, a designation which is beginning to be held in higher regard as public criticism of inhumane farming techniques such as debeaking and the use of antibiotics and growth hormones increases.

AWA Project Director Andrew Gunther said the nationally recognized designation sets a farm apart and gives consumers a reason to select products from your farm rather than another.

More information about the application process is available at animalwelfareapproved.org.

Gunther, who has worked with Fox in the past, said he recognizes the importance of finding humane ways to coexist with native predators, while still helping farmers be as successful as possible. He said one of the goals of AWA is to look out for the best interests of farmers, and randomly killing animals is not the answer to the predator-livestock problem.

"Our aspiration is to help farmers be as profitable as possible, while still leaving a very small footprint. It is about being humane to the animals, humane to the farmer, and humane to the predators. The idea is a balance of nature and an entirely pure food chain," said Gunther.

Community members or ranchers who may be interested in finding out how to help implement a non-lethal predator program can get assistance from Project Coyote, including help facilitating inter-governmental agency and inter-organizational communication to get the program off the ground and assure its success.

Fox said Project Coyote staff and advisory board members assist in all aspects of implementing a site-specific

and regionally based management plan to more effectively handle predator-livestock conflicts.

For more information, including the progress of Project Coyote's efforts, ways to get involved and raise awareness about non-lethal predator control programs, visit the organization's Web site, <a href="Projectcoyote.org">Projectcoyote.org</a>.

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