AGRO

A Coalition To End Aerial Gunning Of Wildlife

Restoring & Protecting Carnivores — Sinapu — In the Southern Rockies

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Courtesy, James Balog

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Re: Petition to Abolish South Dakota's Aerial Gunning Program

Dear Chairman Kesler and Secretary Vonk:

On June 1, 2007, two federal employees died when their Christen Industries A-1 (Husky) plane crashed during aerial gunning operations in Wayne County, Utah. A television news story stated that the pilot and gunner were professionals that flew on "almost daily" hunts. On July 30, 2007, South Dakota officials crashed their similar-style plane while aerial hunting coyotes. According to a news story, pilot Tony DeCino had 17 years of flying experience (Woster 2007). This was the third aerial-gunning related accident during a 60-day period this summer and the 106th that we documented.

From a purely pragmatic standpoint, aerial gunning programs are risky. From a human rights view, why would an agency gamble with its employees' lives? But there are other problems too. The program is fiscally expensive and unrepresentative. In South Dakota, hunters and citizens (who pay county and federal taxes) are forced to subsidize a handful of livestock growers. Despite this outlay, few livestock are actually killed by predators. Finally, predator control programs have enormous biological problems as we have outlined below.

Aerial Gunning is Inherently Dangerous & Foolhardy:

Aerial hunting of wildlife is inherently dangerous as is demonstrated by the 106 accidents/incidents that we documented on our website, www.goAGRO.org. Of these, the State of South Dakota was involved in at least four: July 30, 2007; May 19, 2005; March 30, 2000; and May 11, 1998. Two of those incidents involved problems with errant ammunition. For example, South Dakota state agent Kevin Hoult caused his plane to crash after he fired a shot that lodged in the plane's controls.

In order for gunners to shoot coyotes from the air, pilots fly at minimal elevations and slowly. Obviously, flying close to the ground while chasing coyotes, foxes, or bobcats can lead to trouble, including collisions with powerlines, trees, or land formations. Many aerial gunning accidents occur because of unexpected wind shears. Flying low to the ground leaves little maneuvering room.

Predators Kill Few Livestock:

The U.S. Department of Agriculture-National Agricultural Statistic Service reports cattle and sheep production and predation problems. [See Figures 1 through 4, at www.goagro.org, click on "livestock losses"].[1]

Mammalian carnivores killed 0.18% of the total U.S. cattle production in 2005 and 3% of the sheep production in 2004. In comparison, cattle producers lost 3.9 million head of cattle (4%) to all sorts of maladies, weather, or theft (U.S. Department of Agriculture 2006) [For Figure 1]. Sheep producers lost 376,100 animals (5%) to illness, dehydration, falling on their backs or other causes (U.S. Department of Agriculture 2005c) [Figure 3].

Coyotes were the primary cattle predators—they killed 97,000 cattle in 2005, followed by domestic dogs—which killed 21,900 cattle (U.S. Department of Agriculture 2006) [Figure 2]. The most important sheep predators are (in the 2004 data) coyotes and domestic dogs (U.S. Department of Agriculture 2005c) [Figure 4].

Non-Lethal Predator Controls:

Sheep and lambs are frequently left unguarded on open range. USDA biologists Frederick Knowlton et al. (1999), write, "sheep have been selectively bred for thousands of years to produce animals that are tractable and suited to particular husbandry techniques". Simply put, domestic sheep have few predator-avoidance strategies; therefore, humans must take steps to protect them. (Wild sheep and goats use cliffs and/or steep terrain to avoid predators; how can domestic sheep expect to fare on open, flat range?)

Non-lethal methods of control can be very effective in reducing livestock losses. Unfortunately, livestock producers are not required to use these methods and few economic incentives favor non-lethal controls because producers enjoy highly subsidized lethal predator controls.

Because coyotes (even breeding coyotes) do not specialize on sheep, ranchers can minimize their livestock losses by "concentrating sheep in as small an areas as possible" (Sacks and Neale 2002).

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[1] We do not insert the graphics here because it would make the file too large to email.

Sheep, because of their docile nature, require special protections and a variety of non-lethal techniques exist (Andelt 1996). Human herders and several types of guard animals (llamas, dogs, and burros) are useful. Also, sheep and goats can be bonded with cattle, which are more aggressive animals.

During lambing and calving season, ranchers are advised to bring their livestock into barns, pens or sheds (Andelt 1996). Research on synchronizing the birthing season with that of wild prey species has also proven effective. Scaring devices, like strobe lights, firecrackers, and noisemakers or fladry (flags tied to ropes), offer other alternatives. Finally, the quick removal of all livestock carcasses prevents scavengers from habituating to the taste of livestock. The use of two or more methods together has been proven to be the most effective (Andelt 1996).

<u>Economics & Predator Control</u>:

Despite decades of predator control, which has resulted in more than 5 *million* deaths of predators in the last six decades, lethal predator controls do not benefit greatly sheep growers (Berger 2006). Market forces (primarily the price of hay, wages, and lambs) play a far greater role in the decline of the sheep industry than do predators (Berger 2006). The sheep industry barely benefits from lethal predator controls because the primary costs to sheep producers involve hay and labor (Berger 2006). The cost of removing native carnivores from ecosystems is enormous, however, both in terms of biological diversity and functionality (Miller and Foreman 2003; Smith et al. 2003; Stolzenburg 2006).

<u>Futility of, & Harm Involved with Broad Coyote Removals</u>:

Large-scale predator eradications are biologically expensive and inherently non-selective (Mitchell et al. 2004; Stolzenburg 2006; Treves and Karanth 2003b). Recently, several biologists have expressed their skepticism about the current course and efficacy of lethal predator controls that involve millions of dollars and tens of millions of animals (Berger 2006; Mitchell et al. 2004; Stolzenburg 2006; Treves and Karanth 2003a). Blanket killing methods are indiscriminate and wasteful. In fact, there is no correlation between the number of coyotes killed and the number of lambs lost (Knowlton et al. 1999; Mitchell et al. 2004).

The numbers of predators killed to protect livestock is highly disproportionate—perhaps on order of 1.5 to 9.7 million animals were killed for the benefit of agricultural interests "without cause" (that is, indiscriminate killing) during the period 1996 to 2001 (Treves and Karanth 2003a). Several conservation biologists have called high levels of predator killing the "sledgehammer" approach to wildlife management, that is removing the most animals from an area as possible (Logan and Sweanor 2001; Mitchell et al. 2004; Stolzenburg 2006). Lethal controls, including poisons, are not selective for specific animals, but rather are used to remove the most individuals from an area (Mitchell et al. 2004).

Despite their persecution, coyotes play a keystone role in the ecosystems they inhabit. They protect numerous species by controlling populations of medium-sized carnivores, called "mesopredators," which can include skunks, raccoons, house cats, red foxes, and badgers etc. Coyotes indirectly benefit many ground-dwelling birds, and kit foxes by controlling mesopredators (Crooks and Soule 1999; Cypher and Spencer 1998; Gompper 2002). Coyotes increase the biological diversity (that is, the variety) of rodents in their systems (Henke and Bryant 1999).

Mezquida et al. (2006) found that coyotes indirectly benefit sage grouse populations because: 1) coyotes control the number of mesopredators (red foxes, badgers, and ravens) who are more likely to prey on sage-grouse eggs and their young. 2) A decrease in coyotes may result in the increase of jackrabbits, which has two results: a) jackrabbits compete directly with sage grouse for sagebrush and forbs (for both food and cover); and b) an increase in jackrabbits may lead to an increase in golden eagle populations, "the most important predator of adult sage grouse" (Mezquida et al. 2006).

Thus, the destruction of coyote territories through killing programs may make endangered and other sensitive species more vulnerable to disease or other predators (Cypher and Spencer 1998; Kitchen et al. 1999; Sovada et al. 1995).

Coyote removals create unintended consequences:

- Where coyotes have been controlled, ingress of coyotes from outside the control area will replace killed individuals and the ratio of males to females will increase (Knowlton 1972). After control actions, there may be an initial decrease in coyote population density, but the density may then promptly increase by the ingress of solitary coyotes or infusion from neighboring coyote packs (Crabtree and Sheldon 1999).

- Coyote control may result in the "reproductive release" of suppressed females, as follows: in unexploited coyote populations, coyotes have tight social networks in which only the alpha (dominant) pair of coyotes breed (Crabtree and Sheldon 1999). Subordinate individuals in the pack do not breed. When the alpha pair are removed, however, this reproductive repression disintegrates, and more coyotes within a social group will consequently breed (Crabtree and Sheldon 1999). In other words, maintaining the alpha pair prevents other members of the pack from breeding—but if the alpha pair are killed, members of the pack which were behaviorally suppressed, can now have pups.

- Knowlton et al. (1999) found that unexploited (not disturbed/killed) populations of coyotes tend to have older family structures characterized by lower reproductive rates than exploited populations. The latter group is likely to be characterized by younger adult members, and larger numbers of breeding members with increased litter sizes (Knowlton et al. 1999).

- Coyote control can initially result in a smaller group size, which increases the amount of food per coyote and decreases intra-specific competition. This increased ratio of food per coyote leads to higher litter survival rates, as the increase in the availability of food improves conditions of breeding females. Pups consequently enjoy increased birth weights and increased survival rates (Goodrich and Buskirk 1995).

<u>Aerial Gunning May be Harmful to Other Species</u>:

A review article concerning aircraft effects on wildlife by Christopher Pepper et al. (2003) further informs this issue. Noise pollution, that is, sound that annoys, stresses, or damages the ears can harm wildlife (Pepper et al. 2003). Aircraft engines "generate relatively high amounts of vibration and turbulence" (Pepper et al. 2003), which can worry animals. Finally, even the visual appearance of an aircraft can also cause anxiety in wildlife (Pepper et al. 2003).

Studies show that aircraft can induce several responses in wildlife, including changes in cardiac response, body temperature changes, and flushing responses. While some animals may habituate to noise—especially if it is not novel, others do not (Pepper et al. 2003). Many animals rely on sound to find food, to avoid predators, to reproduce, or find offspring (Pepper et al. 2003). Animals flee when frightened—especially ungulates that have no hiding cover. The heart rates of mountain sheep and desert mule deer increase, and as a result, a flight response is common and can require "the animal to expend large amounts of energy to escape the perceived threat" (Pepper et al. 2003). The authors add, "if there is a short food supply, or if the animal is being stressed in other areas, then there is a possibility for overflights to cause severe negative impacts on some species" (Pepper et al. 2003). Finally, aircraft noise can potentially cause stress that disrupts reproduction.

Low-flying aircraft are detrimental to many wildlife species, not just those in the scope of the gunner. Flights can cause many forms of stress to wildlife, which affects the animals' ability to thrive and reproduce. As indicated above, studies on species vulnerability to aircraft overflights—particularly those considered threatened or endangered—have not been conducted. It is certain that aircraft overflights cause stress on some native species.

<u>Ethical Dilemma of Aerial Gunning</u>:

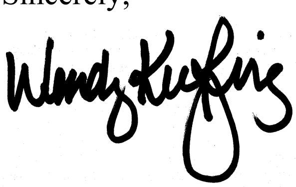
Documents from the USDA-APHIS-Wildlife Services candidly show that aerial gunning is inhumane. In some cases, animals are wounded and had to be shot several times over. Aircrafts made several passes over coyotes before a killing shot hits its target.

Because aerial gunning is often initiated in the springtime, coyotes with dependent pups may be killed living their young orphaned, and likely to die of starvation, predation, or other causes.

Finally, and most importantly, coyotes have the inherent right to exist. To assume that we humans have the right to exploit them in the manner that is commonly practiced is without merit, immoral, ethically void, and inhumane.

Far better methods to protect livestock—including non-lethal ones—exist. They include much safer, more efficient and long-term solutions that will not endanger people or wildlife. For all of the reasons we describe here, we respectfully request that South Dakota permanently suspend its aerial gunning program.

Sincerely,



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