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The Implementation of the Animal Damage Control Act: A Comment on Wildlife Services's Methods of Predatory Animal Control

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The Implementation of the Animal Damage Control Act: A Comment on Wildlife Services's Methods Of Predatory Animal Control

By Tiffany Bacon*

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I. INTRODUCTION

“When we try to pick out anything by itself, we find it hitched to everything else in the universe.”¹

– John Muir

Since the early part of the 20th century, the United States has supported a program aimed at predatory animal control.² Particular species of predators have been significantly affected by the methods used under the auspices of this predator control program. For instance, wolf species, particularly the red wolf, faced near extinction, which created the necessity for programs to restore the population number.³ However, potential species extinction is not the only adverse effect of predatory animal control. There are numerous associated costs that have culminated since the commencement of this program. This article will explore the history, implementation, and effects of this program, known as the Animal Damage Control Act of 1931 (“ADC”). It may be said that the greatest predators of all are, in fact, human beings;⁴ and the execution of the ADC has reflected this. The ADC, since its inception, has been primarily

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¹ John Muir, *John Muir National Historic Site Quotes Page*, SIERRA CLUB (Feb. 7, 2012, 10:18 AM), http://www.sierraclub.org/john_muir_exhibit/writings/quotes.aspx (linking to NAT'L PARK SERV., *John Muir Quote File: I*, <http://www.nps.gov/jomu/historyculture/stories.htm> (citing JOHN MUIR, MY FIRST SUMMER IN THE SIERRA 157)). See also *infra* note 199-200 (providing more information on John Muir).

² 3 PUB. NATURAL RES. LAW § 32:30 (2d ed. 2011).

³ See *infra* section IV(C)(3).

⁴ George Cameron Coggins & Parthenia Blessing Evans, *Predators' Rights and American Wildlife Law*, 24 ARIZ. L. REV. 821, 822 (1982).

driven by ranchers and agricultural interests,⁵ with a disregard for the potential, long-range consequences. While there is an argument that livestock need to be protected from injurious, predatory animals, the resulting costs of the program significantly outweigh any benefit to the preservation of livestock. This article will examine the negative consequences that are products of the ADC and will conclude with potential reforms to the ADC and the agency responsible for completing the purpose of the ADC.

Part II begins with the history leading up to the creation of the Animal Damage Control Act of 1931 and then summarizes the history of the ADC from its inception up to the present day. Part III describes the directives of Wildlife Services, the agency responsible for the ADC's execution. Part IV of this article enumerates the associated costs and consequences that have resulted from the methods used by Wildlife Services in executing the ADC. Part V then considers philosophical and ethical notions, which should be taken into consideration when evaluating the ADC. Part VI provides a critique of Wildlife Services in meeting its stated directives and considers the future of the ADC. Finally, part VII provides this article's conclusion, which is that Congress needs to address the negative consequences of the ADC either through its complete abolition of the act or through significant amendments to the allowable ADC methods.

II. HISTORY: THE DEVELOPMENT OF THE ANIMAL DAMAGE CONTROL ACT OF 1931

A. *Prelude to the Animal Damage Control Act of 1931*

Since this country's earliest times, predator animals have been targets for suppression, as they were considered a threat to livestock.⁶ One of the original colonies had laws that issued bounties

⁵ June C. Edverson, *Predator Control and Regulated Killing: A Biodiversity Analysis*, 13 UCLA J. ENVTL. L. & POL'Y 31, 33 (1994-95).

⁶ Lee M. Talbot, *Does Public Policy Reflect Environmental Ethics? If So, How Does it Happen?*, 37 U.C. DAVIS L. REV. 269, 274 (2003). "When a carnivorous animal catches, kills, and eats an herbivorous animal, the process is termed 'predation.'" Coggins, *supra* note 4, at 822.

for the killing of predator animals.⁷ In fact, in 1630, the Massachusetts Bay Company tendered one penny for every one wolf killed.⁸ Subsequently, several other colonies, with states and municipalities later included, instituted similar bounty programs for the control of bears, wolves, mountain lions, eagles, and coyotes.⁹ Such bounty programs, in efforts to control predator animals, steadily continued into the 20th century both outside of and in connection with state game management programs.¹⁰ Bounty-type, predator control laws can still be found in state statutes.¹¹

⁷ Talbot, *supra* note 6, at 274.

⁸ Edvenson, *supra* note 5, at 37. These bounties were utilized for over three centuries regardless of the continuous problems that they caused. Dale D. Goble, *Of Wolves and Welfare Ranching*, 16 HARV. ENVTL. L. REV. 101, 104 (1992).

⁹ Edvenson, *supra* note 5, at 37. “Bounty systems were curious anomalies. In form they were economic incentives: the taxpayers at large agreed to reward those who rid the community of a menace. In practice[,] they subsidized those on the fringes of civilization and thus had the additional virtue of keeping the rougher human elements out in the forest where they belonged. Bounties were a simple answer to what people long thought was a simple, single problem, but the problem was not so simple . . .” Coggins, *supra* note 4, at 828-29.

¹⁰ Edvenson, *supra* note 5, at 40. This unregulated killing created a ratio imbalance between predator and prey, thereby decreasing species diversity. *Id.* For example, a negative result of game-focused wildlife management was seen in the case of the protected mule deer living on the Kaibab Plateau in Arizona. *Id.* There were 4,000 protected mule deer in 1908; and, when hunters killed over 6,000 predators, the population of the mule deer dramatically increased to 100,000. *Id.* at 40-41. The mule deer exhausted its own natural food supply, and 60,000 mule deer ended up dying of starvation in 1924. *Id.* at 41. By the year 1940, there were only 10,000 mule deer left in the herd. *Id.*

¹¹ *Id.* at 40. “The board shall not pay bounties on crows, rattlesnakes, foxes or wolves other than coyotes.” IOWA CODE ANN. § 331.401(3) (West 2011). “[B]ounties to be paid on predatory animals . . . may not exceed the following: (a) on each wolf or mountain lion, \$100; (b) on each wolf pup or mountain lion kitten, \$20; (c) on one coyote, \$5; and on each coyote pup, \$2.50.” MONT. CODE ANN. § 81-7-202(1) (2011).

[B]ounties may be paid from the state animal damage control fund to an resident of this state who possesses of resident small game license or a resident predator/varmint license and who kills, within the boundaries of this state, including parks and monuments, the following animals: (1) for each adult coyote, five dollars; (2) For each coyote pup, five dollars.

In 1885, what would essentially become the animal damage control program, held under the United States Department of Agriculture (“USDA”), began with the USDA survey regarding crop damage caused by birds.¹² In 1886, and as a response to this survey, the Division of Economic Ornithology and Mammology was created by the USDA, with one of its missions being to “educate farmers about birds and mammals . . . so that the destruction of useful species might be prevented.”¹³

In 1905, and after the Division of Economic Ornithology and Mammology was renamed the United States Department of Agriculture Division of Biological Survey, the United States Forest Service (“USFS”) began working with the Division to uncover methods for controlling wolves and coyotes.¹⁴ This action was motivated by ranchers who complained to the USFS about predatory animals killing cattle and sheep on their land when ranchers were having to pay fees in order to graze livestock on their land.¹⁵

For the first time, in 1915, Congress allocated funds for experiments and demonstrations on the control of predator animals, establishing the “Eradication Methods Laboratory.”¹⁶ This laboratory eventually became known as the Denver Wildlife

SD CODIFIED LAWS § 40-36-15 (2011).

The Commissioner’s Court . . . may pay bounties for the destruction of rattlesnakes, wolves, coyotes, panthers, bobcats, and other predatory animals within the county . . . to protect the interests of livestock and poultry raisers. The commissioners court may set the bounty in the amount not to exceed: (1) \$5 for each wolf, coyote, panther, or bobcat . . .

TEX. HEALTH & SAFETY CODE ANN. § 825.033 (West 2011). “The board may . . . specify bounties on designated predatory animals and recommend procedures for the payment of bounty claims” UTAH CODE ANN. § 4-23-5 (West 2011). “Each [predator management district] board is authorized to pay bounties for predatory animals.” WYO. STAT. ANN. § 11-6-206 (West 2011).

¹² David Hoch, *Tracking the ADC: Rancher’s Boon, Taxpayer’s Burden, Wildlife’s Bane*, 3 ANIMAL L. 163, 165 (1997).

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.* The “Eradication Methods Laboratory” had been moved from Albuquerque, New Mexico, where it was originally housed, to Denver. *Id.*

Research Center.¹⁷ In the same year, Congress authorized a new Branch of Predator and Rodent Control under the USDA Division of Biological Survey, which was to destroy injurious animals, primarily those injuring property.¹⁸ The major events leading to the creation of the Animal Damage Control Act of 1931 would soon follow.

B. Animal Damage Control Act of 1931

In 1930, the American Society of Mammologists opposed the activities of predatory animal control.¹⁹ On March 2, in reaction to Western ranchers' concerns over this opposition, Congress passed the Animal Damage Control Act of 1931.²⁰ The Act was additionally passed "to clarify statutory authority for existing federal predator control efforts."²¹ Primarily, the ADC authorized investigations and

¹⁷ Hoch, *supra* note 12, at 165.

¹⁸ Edverson, *supra* note 5, at 40.

¹⁹ Talbot, *supra* note 6, at 274.

²⁰ *Id.* The Taylor Grazing Act of 1934 "marked the closing of the public domain and gave permanent shape to federal land holdings. Consequently, about half the land in the West remains in federal ownership. The significance in federal ownership in this context is that public lands have been the focal point of predator control efforts in this country." Coggins, *supra* note 4, at 831 (internal citations omitted).

²¹ Edverson, *supra* note 5, at 44. Section 426 states that "[t]he Secretary of Agriculture may conduct a program of wildlife services with respect to injurious animal species and take any action the Secretary considers necessary in conducting the program. The Secretary shall administer the program in a manner consistent with all of the wildlife services authorities in effect on the day before October 28, 2000." 7 U.S.C. § 426 (2006). Prior to the 2000 amendments, this section stated:

The Secretary of Agriculture is authorized and directed to conduct such investigations, experiments, and tests as he may deem necessary in order to determine, demonstrate, and promulgate the best methods of eradication, suppression, or bringing under control on national forests and other areas of the public domain as well as on State, Territory, or privately owned lands of mountain lions, wolves, coyotes, bobcats, prairie dogs, gophers, ground squirrels, jack rabbits, brown tree snakes, and other animals injurious to agriculture, horticulture, forestry, animal husbandry, wild game animals, fur-bearing animals, and birds, and for the protection of stock and other domestic animals through the suppression of rabies and tularemia in predatory or

experiments to determine and transmit the best techniques for the “eradication, suppression, or bringing under control” of a variety of wild species on state, federal, public, and private lands.²² The ADC also made reference to other animals that might cause injury to activities such as “agriculture, horticulture, forestry, and animal husbandry.”²³ According to Professor Coggins, wildlife law expert,²⁴ “[t]he [Animal Damage Control] Act of 1931 apparently was a hasty afterthought that has endured only because of its obscurity The ADC spells out no central aim or purpose; its implicit premise is that all ‘injurious’ species should be destroyed.”²⁵

While the Department of Agriculture was originally responsible for administering the ADC, this responsibility was transferred to the Department of Interior in 1939.²⁶ The Department of Interior assumed the function of the Animal Damage Control Act of 1931 in a new “Branch of Predator and Rodent Control.”²⁷ Subsequently, by 1965, the ADC was administered under the Division of Wildlife Services in the United States Fish and Wildlife

other animals; and to conduct campaigns for the destruction or control of such animals: Provided, that in carrying out the provisions of this section the Secretary of Agriculture may cooperate with States, individuals, and public and private agencies, organizations, and institutions.

7 U.S.C. § 426. In addition, section 426b states that “[t]he Secretary of Agriculture is authorized to make such expenditures for equipment, supplies, and materials, including the employment of persons and means in the District of Columbia and elsewhere, and to employ such means as . . . necessary to execute the functions imposed upon him by section 426 of this title.” 7 U.S.C. § 426b (2006).

²² Edverson, *supra* note 5, at 44. See also U.S. GEN. ACCOUNTING OFFICE, GAO/RECD-90-149, WILDLIFE MANAGEMENT: EFFECTS OF ANIMAL DAMAGE CONTROL PROGRAM ON PREDATORS 13 (1990).

²³ Edverson, *supra* note 5, at 44.

²⁴ *Id.* at 35.

²⁵ *Id.* at 45.

²⁶ *Id.* at 45-46. As a result of this transfer, the funds and activities for predatory animal killings substantially increased, as the Department of Interior was also responsible for administering the 1934 Taylor Grazing Act, which “established grazing districts on public lands, regulated rancher-beneficiaries’ uses, and ultimately engaged Grazing Act ranchers in the [Animal Damage Control] Act’s administration.” *Id.* at 46.

²⁷ *Id.*

Service.²⁸ Wildlife Services is now held under the auspices of the USDA Animal and Plant Health Inspection Service.²⁹

On February 8, 1972, a positive turn of events at the time, President Nixon signed an Executive Order called the Environmental Safeguards on Activities for Animal Damage Control on Federal Lands.³⁰ In addition, President Nixon dismissed the common frontier belief that “the only good predator [was] a dead one,” and replaced it with the notion that even predator animals “have their own value.”³¹ However, in 1975, President Ford partially rescinded the ban on the use of poisons in predator control, which then allowed for the use of M-44s, containing sodium cyanide, in order to kill predatory animals.³²

Soon after President Ronald Reagan’s election, he revoked President Nixon’s 1972 Executive Order.³³ This led to the reintroduction of the use of poisons on public land for the purposes of predatory animal control.³⁴ In addition to this revocation, President Reagan’s Interior Secretary, James Watt, reinstated “denning,” a method for excavating young animals from their dens either through “smoking, burning, or vacuuming” them out, and then “burning, shooting, or clubbing them to death.”³⁵

²⁸ Edverson, *supra* note 5, at 46. “This transfer shifted control of the program away from the single agency whose mission includes ecological research and assessment to an agency whose primary mission is to serve the interests of agribusiness.” *Id.*

²⁹ *WS Enabling Legislation, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE*, http://www.aphis.usda.gov/wildlife_damage/legislation.shtml (last visited Feb. 6, 2012).

³⁰ Talbot, *supra* note 6, at 276. This Order was to accomplish three main objectives: first, it was to stop the use of chemical toxins on federal lands for the purpose of killing predatory animals and birds; second, it was to stop the use of chemicals which cause secondary poisoning effects in any other mammals, birds, or reptiles; and, third, these bans were applied to federal programs, such as the Animal Damage Control Program. *Id.* at 276-77.

³¹ *Id.* at 277.

³² Hoch, *supra* note 12, at 166. M-44s are devices that, when triggered by the animal eating the attached bait, release sodium cyanide into the animal’s mouth, potentially killing it within minutes. *Id.*

³³ *Id.*

³⁴ Edverson, *supra* note 5, at 43.

³⁵ *Id.* at 41, 43.

Currently, “[p]redator law remains vague and schizophrenic.”³⁶ Congress has failed to directly address this issue since 1931.³⁷ In addition, the constitutionality of the ADC has not been challenged.³⁸ When creating the ADC, “Congress . . . paid little heed to then-emerging notions of biological diversity or to aesthetic wildlife values,”³⁹ and Federal law has not changed to recognize such environmental consequences.⁴⁰ “Congress has failed to change the law largely because domination of relevant Congressional committees by Western interests, [such as rancher pressure], made change impossible.”⁴¹

III. USDA WILDLIFE SERVICES: THE WAY WE SEE IT

As the Division of Wildlife Services oversees the implementation of the ADC, which is its enabling legislation,⁴² and predator control techniques, it is important to list what it describes to be its mission and goals. “The mission of Wildlife Services . . . is to provide Federal leadership in managing problems caused by wildlife.”⁴³ While Wildlife Services states its recognition that wildlife is highly valued by the American people because it is an “important public resource,” it also claims that wildlife can cause damage to “agricultural and industrial resources, pose risks to human health and safety, and affect other natural resources.”⁴⁴ Thus, Wildlife Services claims that it is its Federal responsibility to solve

³⁶ 3 PUB. NATURAL RES. LAW § 32:32 (2d ed. 2011).

³⁷ *Id.*; see also Fox, Camilla, *80th Anniversary of the Animal Damage Control Act – No Celebration for Wildlife*, HUFFINGTON POST (Feb. 6, 2012, 10:56 AM), http://www.huffingtonpost.com/camilla-fox/80th-anniversary-of-the-a_b_830645.html.

³⁸ Coggins, *supra* note 4, at 836.

³⁹ *Id.* at 837.

⁴⁰ Edvenson, *supra* note 5, at 43.

⁴¹ *Id.* at 45.

⁴² *WS Enabling Legislation*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/legislation.shtml (last visited Feb. 6, 2012).

⁴³ *Mission*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/about_mission.shtml (last visited Feb. 6, 2012).

⁴⁴ *Id.*

the problems that arise from conflicts between human activity and wildlife.⁴⁵

Wildlife Services states that it seeks wildlife damage strategies that are “biologically sound, environmentally safe, and socially acceptable.”⁴⁶ It claims that it makes an effort to significantly reduce the damage caused by wildlife while also “reducing wildlife mortality.”⁴⁷ Wildlife Services identifies four main goals: (1) providing wildlife services, (2) developing methods, (3) valuing and investing in people, and (4) information and communication.⁴⁸ The main focus of all of these combined is that wildlife management techniques are to serve the protection of agriculture, property, and people by using the best possible methods to deal with humans’ conflict with the existence of wildlife.⁴⁹

Wildlife Services established numerous directives for carrying out wildlife management.⁵⁰ These established directives address the mission and philosophy of Wildlife Services, code of ethics, research and methods development, National Wildlife Research Center (“NWRC”), endangered and threatened species, pesticide use, M-44 use and restrictions, denning, traps and trapping devices, and lethal control of animals, to name a few.⁵¹ The NWRC is supposed to develop a multi-disciplinary research approach in order to collect data on “predator population dynamics, ecology, and behavior in relation to predation patterns on species of human concern, mainly livestock, game species, [and] other predators . . .

⁴⁵ *Id.*

⁴⁶ *Id.* However, it will later be discussed how the practices of implementing the ADC cause significant costs to the biodiversity, the environment, and society. *See infra* section IV.

⁴⁷ *Mission*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/about_mission.shtml (last visited Feb. 6, 2012).

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *WS Program Directive*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Feb. 6, 2012).

⁵¹ *Id.*

.⁵² This data is to be used as a “basis for developing accurate methodologies for indexing predator abundance, monitoring programs, and damage assessment.”⁵³ This data is extremely important as it relates to compliance with the National Environmental Policy Act (“NEPA”) and the Endangered Species Act (“ESA”).⁵⁴ However, the NWRC mentions that there are “significant gaps [that] remain regarding predator-prey, predator-predator, and predator-livestock relationships, and methods of damage assessment and management.”⁵⁵ Unfortunately, the conflict between humans and predatory animals is escalating.⁵⁶

While Wildlife Services suggests that the established directives, in addition to the studies and contributions of the NWRC, have created the best possible methods for dealing with wildlife management and predatory animals, Wildlife Services methods for implementing the ADC have actually led to significant costs to biodiversity, the environment, non-target species, taxpayer dollars, and even predatory animals themselves. Therefore, rather than focusing on lethal control methods, Wildlife Services should shift its focus to non-lethal methods in an effort to alleviate the consequential costs of predator control methods.

IV. COSTS: THE NEGATIVE IMPACTS ASSOCIATED WITH THE IMPLEMENTATION OF THE ANIMAL DAMAGE CONTROL ACT

A. Unnecessary Suffering of Predatory Animals

Various methods, including trapping and snaring, poisoning, denning, aerial chasing and/or land-based killing,⁵⁷ are used under

⁵² *National Wildlife Research Center: Developing Control Methods, Evaluating Impacts and Applying Ecology, Behavior, Genetics, and Demographics to Manage Predators*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/nwrc/research/predator_management/index.shtml (last visited Feb. 6, 2012).

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Reform Wildlife Services' Predator Control*, NATURAL RESOURCES DEFENSE COUNCIL,

the direction of the Animal Damage Control Act of 1931 in order to capture and kill targeted, predator animals.⁵⁸ While proponents of the ADC would argue that such methods are, in fact, humane and necessary to limit the damages caused by predatory animals, such killing methods inflict unnecessary pain and suffering upon all creatures that come into contact with them.⁵⁹

1. Trapping and Snaring

Invented over 300 years ago, the leghold trap is one of the oldest known means for the ADC to control the predator population.⁶⁰ The leghold trap often results in the slow death of its victim after being caught in its snap-style grip.⁶¹ In fact, the American Veterinary Medical Association declared leghold traps to be inhumane.⁶² As a variation of this device, a snare trap has a wire loop which, when activated, catches a part of the animal's body, generally the animal's neck or torso, leading the device to tighten with the accompaniment of the animal's struggle, also resulting in its slow and painful death.⁶³ In 2008 alone, leghold traps and snares captured 48,000 animals, which either suffered a slow death directly in the device or were later captured and killed by a Wildlife Services's agent.⁶⁴ In addition to the unnecessary suffering that

<http://www.nrdc.org/wildlife/animals/wolves/predatorcontrol.asp> (last visited Feb. 6, 2012).

⁵⁸ Edvenson, *supra* note 5, at 41.

⁵⁹ *Id.*

⁶⁰ *Id.* See also Camilla H. Fox, *Carnivore Management in the U.S.: The Need for Reform*, ANIMAL WELFARE INSTITUTE QUARTERLY (Feb. 6, 2012, 2:34 PM), <http://www.awionline.org/awi-quarterly/2009-fall/carnivore-management-u-s-need-reform>.

⁶¹ *Id.*

⁶² Hoch, *supra* note 12, at 168. These traps have also been banned in nearly 70 countries. *Id.*

⁶³ *Id.*

⁶⁴ Fox, *supra* note 60. In Arizona, officials of the state wildlife agency have stated that black bears found in traps had to be killed because they became so dehydrated after being left in the traps for several days. See also U.S. GEN. ACCOUNTING OFFICE, *supra* note 22, at 15. Unfortunately, states have different requirements for the frequency of checking traps, and the ADC abides by the state's requirements. *Id.* In the 2000 fiscal year, over 67,000 animals were

these traps cause, trapping is actually not an efficient method for predator control because workers have to spend numerous hours setting up the traps and retrieving their victims.⁶⁵ Other traps in use by Wildlife Services, aside from leghold traps and snares, include pole traps, rotating jaw traps, cage traps, and decoy traps.⁶⁶

With the widespread use of trapping by Wildlife Services to kill predator animals, advocates of animal rights and even states have recognized the importance of either regulating or banning the use of trapping devices.⁶⁷ Those interested in animal rights have expressed that leghold trapping is the worst option for trapping used by humans.⁶⁸ A number of “restrictions have been proposed through conventional public policy routes of state, local, and federal legislation and state administrative agency regulation.”⁶⁹ Most of the earlier legislative attempts seeking to prohibit or restrict trapping were aimed at the use of the leghold trap.⁷⁰ However, since 1984 with the New Jersey leghold trap ban, state legislatures have not passed any significant restrictions on the use of the leghold trap.⁷¹ Nevertheless, the legislatures of New York, Connecticut, Oklahoma, Vermont, and Rhode Island have enacted complete bans on the use of

captured by Wildlife Services using body-gripping traps. Dena M. Jones & Sheila Hughes Rodriguez, *Restricting the Use of Animal Traps in the United States: An Overview of Laws and Strategy*, 9 ANIMAL L. 135, 136 (2003).

⁶⁵ Coggins, *supra* note 4, at 834.

⁶⁶ *WS Program Directives: Traps and Trapping Devices*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Feb. 6, 2012). Pole-traps consist of foot-hold traps, leg snares, or tangle snares that are placed on poles to capture birds causing damage. *Id.* The Wildlife Services’s directive does not actually provide a description of these devices, other than that they are the “conibear-type.” *Id.* “Conibear” traps are instant kill traps. Jones, *supra* note 64, at 143. Decoy traps are used to capture animals that are attracted to other animals held in the trap. *WS Program Directives: Traps and Trapping Devices*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Feb. 6, 2012).

⁶⁷ Jones, *supra* note 64, at 136-44.

⁶⁸ *Id.*

⁶⁹ *Id.* at 137.

⁷⁰ *Id.*

⁷¹ *Id.* at 138. In 1972, Florida was the first state to ban the use of the leghold trap. *Id.*

snare as trapping devices.⁷² Additionally, the legislatures of Illinois and New Hampshire have banned the use of snares for the taking of all animals, and North Carolina and South Carolina have banned snares, setting aside the exception of their use for trapping beavers.⁷³

While states have made some progress in eliminating the suffering imposed upon predatory animals with the use of these traps, federal law has been unresponsive to efforts to amend the use of trapping devices.⁷⁴ Beginning in the 1970s, efforts were made to ban the use of leghold traps;⁷⁵ however, no legislation has passed.⁷⁶ Additionally, “animal protectionists have also lobbied, unsuccessfully, to limit the use of traps by the Wildlife Services Program through promoting congressional cuts in the program’s funding for lethal animal control.”⁷⁷ Due to lobbying groups representing trapping and agricultural interests and federal and state agency defense of the activity, federal anti-trapping legislation has failed.⁷⁸ Unfortunately, animal anti-cruelty statutes of all fifty states have also not been an effective means for protecting animals from the suffering caused by the use of body-gripping traps.⁷⁹ Therefore, Wildlife Services continues to be the largest user of traps in the United States,⁸⁰ and the use of traps and snares continues to inflict pain and suffering upon predatory animals, or any unsuspecting victim.

2. Poisons

In addition to trapping and snaring, those implementing the ADC use various forms of poison in order to kill predator animals.⁸¹ The two main forms include sodium monofluoracetate, also known as

⁷² Jones, *supra* note 64, at 138.

⁷³ *Id.* at 138-39.

⁷⁴ *Id.* at 152.

⁷⁵ *Id.* “During the 1975-76 session alone a total of twenty-three anti-trapping bills were introduced.” *Id.*

⁷⁶ *Id.*

⁷⁷ Jones, *supra* note 64, at 153.

⁷⁸ *Id.* at 152.

⁷⁹ *Id.* at 149.

⁸⁰ *Id.* at 152.

⁸¹ Edverson, *supra* note 5, at 41.

compound 1080, and sodium cyanide devices, also known as M-44s.⁸² Compound 1080 decomposes very slowly and is also tasteless, odorless, and colorless.⁸³ Because this poison causes a painstaking and excruciating death to its victim, it has been referred to as “the most inhumane poison conceived by man.”⁸⁴ While some species may be more tolerant to the poisonous effect of Compound 1080 than others, it provides a lethal dosage to animals known as carrion eaters or scavengers.⁸⁵ The M-44 is a spring-loaded device, which is baited to lure a predator animal to bite.⁸⁶ When the predator animal bites the bait, sodium cyanide is shot into the mouth of the predator animal.⁸⁷ Unfortunately, this device only displays a small warning to alert humans of its danger.⁸⁸ Also known as the “coyote-getter,” M-44s cause virtually instant death.⁸⁹ Despite President Nixon’s efforts to ban these poisons from public lands because the killings were excessive and indiscriminate, federal law has not yet taken a stand to eliminate the use of these poisons.⁹⁰

Fortunately, some states have taken the lead in banning the use of Compound 1080 and M-44s. In California, no person, including any employee of the state, federal, county or municipal government, may use Compound 1080, or sodium cyanide, to poison or make an attempt to poison any animal.⁹¹ Additionally, in the state of Washington, it is also unlawful to use Compound 1080 or sodium cyanide to poison or attempt to poison any animal; and a violation of

⁸² *Id.* at 41-42.

⁸³ *Id.*

⁸⁴ *Id.* at 42.

⁸⁵ Coggins, *supra* note 4, at 840.

⁸⁶ Talbot, *supra* note 6, at 275.

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ Edvenson, *supra* note 5, at 42.

⁹⁰ *Id.* at 43. Wildlife Services’s directive on M-44 use and restrictions states that M-44s “may only be used for control of coyotes, red and grey foxes, and wild dogs that are vectors of communicable diseases or suspected of preying on livestock, poultry, and federally designated threatened and endangered . . . species.” *WS Program Directives: M-44 Use and Restrictions*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Feb. 6, 2012). *But see* section IV(B).

⁹¹ CAL. FISH & GAME CODE § 3003.2 (West 2011).

this law will result in an individual being found guilty of a gross misdemeanor.⁹² At the federal level, on June 29, 2010, Democratic Congressman Peter Defazio, of Oregon, along with Republican Congressman John Campbell, of California, introduced an amendment to the Toxic Substances Control Act.⁹³ The amended act, to be called the Compound 1080 and Sodium Cyanide Elimination Act, would “prohibit the use, production, sale, importation, or exportation of . . . [Compound 1080].”⁹⁴ The act would also prohibit the use of sodium cyanide in a predator control device, in addition to “[s]ubject[ing] a violator of either such prohibition to a fine, imprisonment for not more than two years, or both.”⁹⁵ Such measures at both the state and federal level are evidence that the use of Compound 1080 and M-44s are damaging methods of predator control and management. The future of the Compound 1080 and Sodium Cyanide Elimination Act is crucial to the well being of predatory animals in the United States, and it will be very interesting to see whether the federal government steps up and finally bans the use of these poisons by passing this proposed bill.

3. Denning and Aerial Chasing

The remaining methods, including denning, aerial chasing and land-based killing, are considered nearly as inhumane as the former methods. As stated previously, denning is the “practice of smoking, burning or vacuuming young animals out of dens, and then burning, shooting or clubbing them to death.”⁹⁶ In some instances,

⁹² WASH. REV. CODE ANN. § 77.15.196 (West 2011). A gross misdemeanor is a serious misdemeanor, not considered to be a felony, which is “punishable by fine, penalty, forfeiture, or confinement . . . in a place other than prison” BLACK’S LAW DICTIONARY 1089 (9th ed. 2009).

⁹³ OPEN CONGRESS FOR THE 112TH UNITED STATES CONGRESS, <http://www.opencongress.org/bill/111-h5643/show> (last visited Feb. 6, 2012).

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ Edvenson, *supra* note 5, at 41. When dry brush is packed into the den, set on fire, and the den is covered by a rock, the theory is that the pups will suffocate from the smoke. However, Dick Randall, a former hunter for the ADC reflects that the pups often scramble to the cracks of light in desperation for an escape. The pups were heard yowling, as they were burned alive. Hoch, *supra* note 11, at 169-70.

the den is filled with poison gas.⁹⁷ Denning, however, does not lead livestock to be protected from full-grown predators, but is rather a way to assist in the elimination of predators entirely by targeting the younger generation of predatory animals.⁹⁸ Wildlife Services's directive, on the other hand, merely refers to denning as "the practice of removing predators . . . from their den to manage damage to livestock, or other resources."⁹⁹ The directive also states that predator damage management is completed by using fumigants or excavating the den, followed by the predator being "humanely euthanized."¹⁰⁰ Therefore, Wildlife Services provides a vague description of what denning entails as a method for implementing the ADC.

While the description of denning paints a cruel picture, the practice of aerial chasing does as well. It is disturbing to think that planes are given the latitude to chase down terrified and helpless animals running for their lives from their eventual death by shooting. However, the majority of ADC killing is done by aerial shooting, mainly in the winter months when the animals have nowhere to hide.¹⁰¹ Between the years 2001 – 2007, Wildlife Services aerially

⁹⁷ Hoch, *supra* note 11, at 170.

⁹⁸ Coggins, *supra* note 4, at 834.

⁹⁹ *WS Program Directives: Denning*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Feb. 6, 2012).

¹⁰⁰ *Id.*

¹⁰¹ Hoch, *supra* note 12, at 169. Dick Randall claimed that he once killed forty-two coyotes in six hours. However, the predation reports following these killings showed that coyotes still killed the same or a slighter higher amount of local livestock. *Id.* In Utah, on national forest lands, coyotes are shot from helicopters in the winter because the snow-covered ground makes it easier for the coyotes to be seen. U.S. GEN. ACCOUNTING OFFICE, *supra* note 22, at 15. "This activity is undertaken to reduce local coyote populations before moving sheep onto the land the next summer regardless of whether livestock losses have occurred on the lands during the previous summer grazing season." *Id.* at 17. While officials of the ADC stated that such measures were only being used in areas where there was a history of coyote predation, the report found that this was not true for the majority of cases in Utah, where the ADC had reported no sheep killed on 60 percent of grazing allotments. *Id.* Additionally, in the states of Texas and New Mexico, the ADC made an effort to kill all coyotes around areas producing livestock in order to prevent losses to livestock in the future. *Id.*

shot a total of 248,716 animals, including black bears, bobcats, coyotes, red and grey foxes, and gray and Mexican wolves.¹⁰² Wildlife Services also uses a process known as “calling and shooting,” where a device is used to imitate the howl of a coyote or the cry of rabbit in distress in order to lure a coyote into the open so it can be easily shot.¹⁰³ Despite their cruelty, these methods serve as current predatory animal control practices.¹⁰⁴

B. Impact on Non-Predatory Animals and Humans

The majority of predatory animal control methods result in non-selectivity.¹⁰⁵ Non-selectivity means that non-targeted species, those that do not present a risk to livestock, are killed, resulting in the lack of species diversity.¹⁰⁶ Edverson notes that non-selectivity emerges in two ways: 1) mass killings of various species that the remaining ecosystem relies on for the balance between predator and prey and species diversity, and 2) the selective killing of predator animals that are non-problematic.¹⁰⁷ With respect to the first type, on an annual basis, traps and poisons intended for predatory animals kill thousands of animals from various species, including domesticated animals.¹⁰⁸ One study that looked at lethal, predator control

¹⁰² *Animals Shot From Aircraft by Wildlife Services, 2001-2007*, PREDATOR DEFENSE, <http://www.predatordefense.org/USDA.htm> (last visited Feb. 6, 2012).

¹⁰³ U.S. GEN. ACCOUNTING OFFICE, GAO/RECD-96-3, ANIMAL DAMAGE CONTROL PROGRAM: EFFORTS TO PROTECT LIVESTOCK FROM PREDATORS 10 (1995).

¹⁰⁴ Edverson, *supra* note 5, at 41. This practice is quite prevalent in Alaska where aerial killing has been used to kill wolves. John Shackelford, *Western Politics and Wildlife Policy: The Case of the Gray Wolf*, 8 SUSTAINABLE DEV. L. & POL’Y 44 (2007). Even after the passage of the Airborne Hunting Act, it was alleged that there was an exception, which provided for any person to operate under the state or federal authority in the protection of natural resources. *Id.* There is fear that such an exception will lead to the eradication of wolves, as occurred in Idaho, Montana, and Wyoming in the 1930s where they were subsequently reintroduced. *Id.*

¹⁰⁵ Edverson, *supra* note 5, at 47.

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

programs suggested that up to 81.3 percent of the animals removed were non-offending problem animals.¹⁰⁹ “In 2008, [Wildlife Services] killed more than 120,000 native carnivores in the [United States], . . . approximately 90,000 were coyotes. In addition to coyotes, more than 5,000 foxes, 1,883 bobcats, 528 river otters, 396 gray wolves, 395 black bears, and 373 mountain lions were killed that same year.”¹¹⁰ In 2010, examining Wildlife Services’s most recent kill numbers, more than 2,000 foxes, 1,405 bobcats, 572 river otters, 542 gray wolves, 586 black bears, and 367 mountain lions were killed, in addition to the 80,657 coyotes killed.¹¹¹ With respect to the second type of non-selectivity, predatory animal control methods are used to kill those animals that are not actually causing any harm.¹¹² Practices such as aerial hunting, which was formerly discussed, are used to indiscriminately kill non-problematic, predatory animals.¹¹³ Dick Randall, former ADC hunter, notes that this destruction “only creates more problems The only time a lethal control method ever works is when it is directed at the animal actually doing the damage.”¹¹⁴

¹⁰⁹ Fox, *supra* note 60.

¹¹⁰ *Id.*

¹¹¹ *Wildlife Services’ 2010 Program Data Reports: Table G Animals Taken by Wildlife Services*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/prog_data/2010_prog_data/index.shtml 1 (last visited Feb. 6, 2012).

¹¹² Edvenson, *supra* note 5, at 47.

¹¹³ *Id.*

¹¹⁴ *Id.* at 48. Even Wildlife Services recognizes that the use of traps and trapping devices can result in non-selectivity. *WS Program Directives: Traps and Trapping Devices*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml. The directive states:

All traps and trapping devices will be set in a manner which minimizes the chances of capturing nontarget species In the . . . event that an animal determined to be licensed, lost pet is captured, reasonable efforts will be made to notify the owner, to seek veterinary assistance if necessary, or to provide the animal to appropriate local authorities.

Id.

This non-selectivity of predator control programs was brought to public attention in late 1970 and 1971 with many dramatic occurrences.¹¹⁵ One such occurrence was western ranchers, assisted by a federal employee of the predator control program, who were found to be shooting eagles by aircraft, when eagles were on the endangered species list and protected by two federal laws.¹¹⁶ However, dramatic incidents are not limited to effects on endangered species.

Humans have also been the unintended targets of the methods used to kill predatory animals.¹¹⁷ In fact, “[a] small but growing body of law under the Federal Tort Claims Act (“FTCA”)¹¹⁸ and state statutes tended to impose liability on the agency [responsible for the implementation of the ADC] when its negligence caused human injury.”¹¹⁹ As one of the first instances of injury, there was an Oregon hunter who, when pulling his dog away from the dog’s attraction to the bait of the M-44, received a discharge of the poison in his face, causing him serious injuries.¹²⁰ The M-44 had no warning signs.¹²¹ In another event, an eleven-year-old boy was shot in the face with poison from an M-44 device.¹²² The innocent boy was walking with his parents when he found the device and tried to

¹¹⁵ Talbot, *supra* note 6, at 276.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ 28 U.S.C.A. §1346(b) (West 2011).

¹¹⁹ Coggins, *supra* note 4, at 842.

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² Talbot, *supra* note 6, at 276.

Any toxic or adverse effect which occurs to . . . the public involving the use . . . of sodium cyanide is to be immediately reported to the appropriate State Director [However,] the Director will determine if the incident should be reported to the EPA and to the Director of Environmental Services, APHIS.

WS Program Directives: M-44 Use and Restrictions, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Feb. 6, 2012). Therefore, the Director can use its discretion in determining whether to report an incident or not.

pick it up, which subsequently triggered the poison shot.¹²³ The young boy lost an eye to the device.¹²⁴ However, he likely could have sustained even more significant injuries or even death. Most recently, a woman brought a claim against Wildlife Services under the FTCA due to her injuries resulting from an aerial shooting operation.¹²⁵ Wildlife Services conducted an aerial shooting over her private property without her consent, even though they are not permitted to do so.¹²⁶ As a result of the shots, the woman's horse was spooked and knocked her to the ground, and she suffered serious injuries as a result of Wildlife Services's negligent actions.¹²⁷ Therefore, implementation of the ADC not only presents serious harmful effects to animals, but also poses significant risks to human beings, especially when Wildlife Services fails to conduct their activities properly.

¹²³ Talbot, *supra* note 6, at 275. As a result of the Federal Tort Claims Act, the government has opened itself to liability and waived extensive immunities for injuries arising from actions made by federal officials, or injuries due to federal property. David Todd, *Wolves – Predator Control and Endangered Species Protection: Thoughts on Politics and Law*, 33 S. TEX. L. REV. 459, 486 (1992). The Federal Government might also be charged per se negligent by using M-44, “coyote-getters,” because many states have passed laws against the use of spring or set-guns. *Id.*

¹²⁴ Coggins, *supra* note 4, at 843.

The court held that placement of the [M-44] violated the North Dakota law prohibiting spring guns or other such trap devices. It further found that the . . . agent was negligent in adequately posting the area with caution signs when he knew or ought to have known that the land on the farm was hunted . . .

Id. In another unreported case, a backpacking Boy Scout tripped over an M-44 and was shot in the face with poison. *Id.*

¹²⁵ Bloodsworth v. United States, No. CV 08-522-SU, 2010 WL 170261, at *1 (D. Ct. Or. Jan. 15, 2010).

¹²⁶ *Id.* at *3.

¹²⁷ *Id.* at *4.

C. Environmental Impact

1. Effects of Compound 1080 and M-44s

The Environmental Protection Agency (“EPA”) acknowledges that Compound 1080 and M-44s (sodium cyanide) are both acute toxicants used by Wildlife Services for predatory animal control.¹²⁸ The EPA also acknowledges that, by the 1972 Executive Order,¹²⁹ the Administrator noted that cancellation of these poisons was, in part, due to the nature of their extreme toxicity.¹³⁰ After 1982, following the rescission of the ban on the use of these poisons, the EPA placed a number of restrictions on their use.¹³¹ However, despite these specific EPA restrictions, a 2004 report by the Office of the Inspector General (“OIG”) determined that Wildlife Services “[was] unable to fully account for its inventories of hazardous pesticides . . . , and that these inventories [were] not always stored in a safe and secure manner.”¹³² Additionally, the OIG stated that this situation existed because Wildlife Services was not effectively managing the controls “over its inventories to ensure that full accountability and effective safeguarding measures [were] in operation.”¹³³ As a result, “hazardous materials remain[ed]

¹²⁸ Response from U.S. Env'tl. Prot. Agency (“USEPA”) to Ms. Wendy Keefover-Ring, Director, Carnivore Protection Program, 4 (Jan. 16, 2009) (on file with U.S. Env'tl. Prot. Agency, *as found on* http://nlquery.epa.gov/epasearch/epasearch?querytext=compound+1080&fld=&areaname=&typeofsearch=epa&areacontacts=http%3A%2F%2Fwww.epa.gov%2Fepa%2Fhome%2Fcomments.htm&areasearchurl=&result_template=epafiles_default.xsl&filter=sample4filt.hts).

¹²⁹ Suspension of Registration for Certain Products Containing Sodium Fluoroacetate (1080), Strychnine and Sodium Cyanide, 37 Fed. Reg. 5718 (proposed March 18, 1972); *see also* section II.

¹³⁰ Response from USEPA, *supra* note 128, at 5.

¹³¹ *See generally* Response from USEPA, *supra* note 128. For instance, there were certain specified areas where the Compound 1080 laced livestock protection collars could not be used, and 26 specific restrictions were placed on the use of M-44s.

¹³² USDA OFFICE OF THE INSPECTOR GENERAL NORTHEAST REGION, AUDIT REPORT ANIMAL PLANT AND HEALTH INSPECTION SERVICES’ CONTROLS OVER HAZARDOUS MATERIALS INVENTORY, R. No. 33001-05-Hy, at 3 (July 2004), *available at* <http://www.usda.gov/oig/rptsauditsaphis.htm>.

¹³³ *Id.*

vulnerable to undetected theft and unauthorized use, and [had the potential to] pose a threat to human and animal safety.”¹³⁴ Therefore, not only does the toxicity of these poisons alone pose a significant risk to human and animal safety, the added negligence of Wildlife Services further contributes to this threat.

Despite individual efforts to challenge the use of Compound 1080 and M-44s by asking for their suspension or cancellation, the EPA continues to allow their use. For example, in July of 2004, the EPA declared that it “does not believe that relying on livestock producers to dispose properly of Compound 1080 presents a significant risk of exposure to Compound 1080.”¹³⁵ In addition, the EPA found that “the speculative possibility of ranchers or applicators improperly disposing of livestock protection collars does not warrant cancellation of the registration. Moreover, the use of [Compound 1080] is very limited nationwide.”¹³⁶ In consideration of this, the “EPA believes that it is unlikely that environmental contamination from Compound 1080 is likely to be a significant problem in the future.”¹³⁷ However, factors such as the previous ban on these poisons, the poisons’ levels of extreme toxicity, and the fact that they are being improperly managed and monitored by Wildlife Services is reason enough to push for a federal ban on their use in Wildlife Services’s predatory animal control because they pose a considerable risk to human and animal safety.

2. Loss of Biodiversity and Biological Responses

If the USDA’s Wildlife Services’s ADC program continues to kill predatory animals in the interest of agribusiness, essentially supplanting wild animals with farm animals, what will be the cost to biodiversity? Regardless of your background or beliefs, common sense tells you that natural predators are present on this earth for a reason. Predators have their specific place in the broader

¹³⁴ *Id.*

¹³⁵ *Id.* at 32.

¹³⁶ *Id.*

¹³⁷ USDA OFFICE OF THE INSPECTOR GENERAL NORTHEAST REGION, AUDIT REPORT ANIMAL PLANT AND HEALTH INSPECTION SERVICES’ CONTROLS OVER HAZARDOUS MATERIALS INVENTORY, R. No. 33001-05-Hy, at 32 (July 2004), available at <http://www.usda.gov/oig/rptsauditsaphis.htm>.

ecosystem.¹³⁸ “Predation is a fundamental biological process”¹³⁹ The existence of predator and prey is complimentary, creating “a balanced exchange of energy that provides both with life.”¹⁴⁰ In addition, however, the interrupted balance between predator and prey also has a wider impact on other species and plants in the ecosystem.¹⁴¹ For example, coyotes are known to feed on rodents, lizards, snakes, and even berries and fruits, as well as scavenging on the carcasses of sheep, horse, cattle, and swine, which they have not killed.¹⁴² In addition, predatory animals communicate their territorial boundaries and social status in a complex manner.¹⁴³ This communication is disrupted by the killing activities of the ADC program.¹⁴⁴

A study involving six United States national parks, including Yellowstone, Yosemite, Wind Cave, Zion, and Olympic National Park, have revealed that many negative, biological effects occur when “keystone” predators, such as wolves, are removed.¹⁴⁵ The

¹³⁸ Edverson, *supra* note 5, at 35-36.

¹³⁹ *Id.* at 35.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 36.

¹⁴² *Id.*

¹⁴³ Edverson, *supra* note 5, at 35.

¹⁴⁴ *Id.* Around May 1965, at the time that Animal Damage Control was spreading about 610,000 pounds of Compound 1080 annually, non-targeted species were affected by the targeted ground squirrel poisoning. *Id.* at 55. The ground squirrel was the prey to many species, including the golden and bald eagles and the cooper’s hawk; and the ground squirrel also made up about 50 percent of the diet for the coyote and the red-tailed hawk, in addition to 80 percent of the diet for the gopher snake. *Id.* The ADC’s killing of the ground squirrels significantly impacted all of these species. *Id.*

¹⁴⁵ Debra L. Donahue, *Trampling the Public Trust*, 37 B.C. ENVTL. AFF. L. REV. 257, 264 (2010). Yellowstone National Park, which extends through the states of Idaho, Montana, and Wyoming, is America’s first national park; and the Yellowstone to Yukon region is a 2,000-mile-long wildlife migration corridor. *Yellowstone National Park*, NAT’L PARKS CONSERVATION ASS’N, http://www.npca.org/parks/yellowstone-national-park.html?adwords=1&gclid=CLHw_eDCgq4CFQVwhwodUHZZ4A (last visited Feb. 6, 2012). Yosemite National Park, located in California, is home to more than 400 vertebrate species. *Yosemite: Nature and Science*, NAT’L PARK SERV., <http://www.nps.gov/yose/naturescience/index.htm> (last visited Feb. 6, 2012). Wind Cave National Park, located in the state of South Dakota, is commonly home to

following include some of the negative biological effects: populations of elk increased significantly with changes in their foraging behavior; elk moved to riparian areas and “overbrowsed” plants; loss of plants, including the cottonwood, aspens, and berry-producing shrubs, led to losses of other species, including the beaver, songbirds, and amphibians; and “loss of top predators triggered an explosion of ‘mesopredators,’¹⁴⁶ . . . which led to further cascading effects.”¹⁴⁷

Overall loss of biodiversity and biological responses are not the only biological effects to ADC killing activities. Biologists who have studied the behavior of coyotes, have suggested that the methods used to kill predatory animals can actually backfire, thereby causing increased coyote populations that might be resistant to control techniques.¹⁴⁸ Decades of baiting and poisoning coyotes and other predatory animals have led them to become guarded and resistant.¹⁴⁹

animals such as the coyote, elk (previously re-introduced to the park), and deer. *Wind Cave: Mammals*, NAT'L PARK SERV., <http://www.nps.gov/wica/naturescience/mammals.htm> (last visited Feb. 6, 2012). Zion National Park, located in the state of Utah, provides a home to over 78 species of mammals and 291 species of birds. *Zion: Animals*, NAT'L PARK SERV., <http://www.nps.gov/zion/naturescience/animals.htm> (last visited Feb. 6, 2012). Finally, Olympic National Park, located in the state of Washington, provides refuge for animals like the lynx, coyote, red fox, and grizzly bear. *Olympic: Animals*, NAT'L PARK SERV., <http://www.nps.gov/olymp/naturescience/animals.htm> (last visited Feb. 6, 2012).

¹⁴⁶ “Mesopredators are ‘generalists that survive by switching to other prey items whenever a preferred food source is depleted . . . Normally, when wolves are present, coyote populations are suppressed by territorial aggression and by predation and smaller mammal and birds are released from the risk of coyote predation.’” Anna Remet, *The Return of the Noble Predator: Making the Case for Wolf Reintroduction in New York State*, 9 ALB. L. ENVTL. OUTLOOK J. 89, 141 (2004).

¹⁴⁷ Donahue, *supra* note 145, at 264. Some of the “overbrowsed” plants include “cottonwood, aspen, willow, oaks, maples, and berry producing shrubs.” *Id.* In addition, loss of vegetation along streams caused changes to the function of floodplains. *Id.*

¹⁴⁸ Edvenson, *supra* note 5, at 48-49.

¹⁴⁹ *Id.* at 49.

3. Re-Introduction of Wildlife Upon Endangerment

In the 1930s, after the introduction of the ADC program, wolves were eradicated from Idaho, Montana, and Wyoming.¹⁵⁰ This effect likely spawned from the allowance of aerial hunting of wolves.¹⁵¹ Despite this gloomy fact, a USDA kill chart used for the years 2001-2007 reflects that Wildlife Services shot 312 gray wolves from aircraft.¹⁵² In addition, in 2010, 452 grey wolves were intentionally killed by Wildlife Services's predator control program.¹⁵³ As another example, red wolves, like many other wolf species, play a major part in the overall stability of the ecosystem.¹⁵⁴ This species inhabited areas as far north as Kentucky and the Carolinas, and also thrived in the regions of Central Texas to Southern Florida, until human activity conflicted with its existence.¹⁵⁵ Of course, like many other predatory animals, livestock owners targeted the red wolf.¹⁵⁶ This, combined with predator

¹⁵⁰ Shakelford, *supra* note 104.

¹⁵¹ *Id.*

In the 1930's[,] outdoor magazines such as the Alaska Sportsman[,] extolled the life of the wolf hunter, publishing stories such as 'Wolves Killed Crist Colby' [and] 'I Match Wit with Wolves[.]' . . . Books appeared [. . .] with passages like the following report of a wolf kill: 'What excitement! . . . It pleased me greatly to see this leader of destruction lying dead on the ground before me.'

Todd, *supra* note 123, at 465.

¹⁵² *Animals Shot From Aircraft by Wildlife Services, 2001-2007*, PREDATOR DEFENSE, <http://www.predatordefense.org/USDA.htm> (last visited Feb. 6, 2012).

¹⁵³ *Wildlife Services' 2010 Program Data Reports: Table G Animals Taken by Wildlife Services*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/prog_data/2010_prog_data/index.shtml (last visited Feb. 6, 2012).

¹⁵⁴ John M. Bowlin & Eric M. Brewer, *Gibbs v. Babbitt: Red Wolf Protection Under the Endangered Species Act Leaps Beyond the "Outer Limits" of the Commerce Clause*, 23 PUB. LAND & RESOURCES L. REV. 221, 223 (2002).

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

control methods, led to the targeted, red wolves near extinction.¹⁵⁷ The red wolf was eventually placed on the Endangered Species List and enlisted in a captive breeding program.¹⁵⁸

As a result of the near extinctions of animals like the red wolf, Congress eventually passed the Endangered Species Act to address the damage that had already been enhanced by Wildlife Services's killing methods.¹⁵⁹

The language of the Endangered Species Act, found in 16 U.S.C. § 1531, essentially states that Congress recognizes that a number of species, including wildlife, fish, and plants, have either become extinct or are in danger of extinction as a consequence of human action, and conservation programs should be maintained to safeguard these and other species in the future.¹⁶⁰ In addition, 16 U.S.C. § 1533 states:

The Secretary shall by regulation [. . .] determine whether any species is an endangered species or a threatened species because of any of the following factors: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B)

¹⁵⁷ *Id.*

¹⁵⁸ *Id.*

¹⁵⁹ Goble, *supra* note 8, at 106.

¹⁶⁰ 16 U.S.C. § 1531 (2006).

The Congress finds and declares that – (1) various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation; (2) other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of or threatened with extinction; (4) these species of fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people; [. . .] and (5) encouraging the States and other interested parties, through Federal financial assistance and a system of incentives, to develop and maintain conservation programs which meet national and international standards is a key to [. . .] better safeguarding, for the benefit of all citizens, the Nation's heritage in fish, wildlife, and plants.

Id.

overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.¹⁶¹

Congress's decision to enact the ESA was part of a response to the species' damage that had been caused by Wildlife Services and the implementation of the ADC.¹⁶² The wolf was one of the most significant species that was placed on the list.¹⁶³ While the ESA adopted a more biological perspective by trying to do away with or minimize economic concerns, the ESA also had three primary effects:¹⁶⁴

First, all 'persons' are required to refrain from conduct that will 'take' a listed species. Second, all federal agencies are to 'insure' that actions that they undertake or permit do not 'jeopardize the continued existence' of listed species. Finally, [. . .] federal agencies are under an obligation to take action to increase the population of a species.¹⁶⁵

In addition to the first primary effect, federal agencies are also required to evaluate any effects they might have on listed species as a result of their proposed actions.¹⁶⁶ Therefore, there is a prohibition on federal agencies from allowing or completing actions that have a high potential for reducing the possibilities of recovery and survival of species, which could occur by the reduction in species' reproduction, numbers, or distribution.¹⁶⁷ In addition to these duties, recovery plans for listed species are to be adopted and implemented by federal agencies.¹⁶⁸

¹⁶¹ 16 U.S.C. § 1533 (2006).

¹⁶² Goble, *supra* note 8, at 106.

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 106-07.

¹⁶⁵ *Id.* at 107.

¹⁶⁶ *Id.* at 108.

¹⁶⁷ Goble, *supra* note 8, at 109.

¹⁶⁸ *Id.*

Even though the ESA imposed an affirmative duty upon federal agencies to adopt recovery plans for listed species, a period of fourteen years passed between the time that the gray wolf was listed and the publication of the plan for Northern Rocky Mountain wolf recovery.¹⁶⁹ In addition, while the ESA's goal was to adopt a more biological perspective and minimize the role of economics, the language of this Wolf Recovery Plan reflects that economics actually became the driving force of wolf recovery.¹⁷⁰ Unfortunately, a consistent undercurrent in this plan is that cattle and sheep are the "rightful users of the public lands," rather than the wolves aimed at recovering.¹⁷¹ This undercurrent allows for the lethal control measures when the wolves are considered to be a threat to "lawfully present livestock or when a taking is necessary to control specific problem animals."¹⁷² The Wolf Recovery Plan's control program, therefore, additionally subsidizes an already subsidized industry with the requirement that the federal government needs to kill or remove wolves that are considered to be offending animals.¹⁷³ The agency's reliance upon lethal control methods as a way of managing the wolf population is essentially inconsistent with the ESA, which is founded on the prohibition of killing species on the endangered species list unless there is some "extraordinary" situation.¹⁷⁴

¹⁶⁹ *Id.* at 110.

¹⁷⁰ *Id.* at 112-113. The Wolf Recovery Plan did not designate any areas of critical habitat as is required under the ESA. In addition, the authors of the Wolf Recovery Plan repeatedly emphasized the potential social and economic impact when looking to make decisions regarding the Plan's elements, going against ESA's notion that biology should limit the consideration of economics. *Id.* at 114.

¹⁷¹ *Id.* at 115.

¹⁷² Goble, *supra* note 8, at 118. The agency responsible for implementing the Wolf Recovery Plan actually argues that killing the wolves that are responsible for killing other livestock will actually enhance the survival of the wolves because "removal of problem animals does more than stop the depredation. It relieves the pressures or antagonisms directed toward the total population by the landowners incurring the losses or other members of the public. Consequently, the local [wolf] population is in less danger from potential nonselective illegal attempts to damage control." *Id.* at 121.

¹⁷³ *Id.* at 116.

¹⁷⁴ *Id.* at 124.

Therefore, in spite of the passage of the ESA, predatory animal killings continue to occur.¹⁷⁵ The agency that is supposed to be enforcing the ESA has exhibited obvious deference to the interests of ranchers raising livestock, which shows a lack of commitment when it comes to enforcement of the ESA.¹⁷⁶ Unfortunately, as a result of this lack of commitment, at least twenty species dwindled to extinction since 1980, despite the existence of the ESA having the duty of actually protecting such threatened species.¹⁷⁷

Various other laws influencing the nature of predatory animals in the United States include: The Bald and Golden Eagle Protection Act, the Wild, Free-Roaming Horses and Burros Act of 1971, the Federal Insecticide, Fungicide, and Rodenticide Act, the National Forest Management Act, the Administrative Procedures Act, and NEPA.¹⁷⁸ While NEPA does not specifically address

¹⁷⁵ See generally *id.* See also Edverson, *supra* note 5.

¹⁷⁶ Goble, *supra* note 8, at 126.

¹⁷⁷ *Id.* at 125. “One species actually became extinct notwithstanding the fact that its only habitat was a wildlife refuge managed by the Fish and Wildlife Service.” *Id.*

¹⁷⁸ Edverson, *supra* note 5, at 56. The Bald Eagle Protection Act prohibits individuals from taking, possessing, selling, purchasing, bartering, transporting, and importing or exporting any bald or golden eagle, whether alive or dead, or any of its parts, nests, or eggs. Anyone in violation of the Bald Eagle Protection Act can be fined or imprisoned. 16 U.S.C. § 668 (2006). The Wild, Free-Roaming Horses and Burros Act of 1971 establishes that “[i]t is the policy of Congress that wild free-roaming horses and burros shall be protected from capture, branding, harassment, or death; and . . . they are to be considered . . . an integral part of the natural systems of the public lands.” 16 U.S.C. § 1331 (2006).

The objective of [Federal Insecticide, Fungicide, and Rodenticide Act] FIFRA is to provide federal control of pesticide distribution, sale, and use. All pesticides used in the United States must be registered (licensed) by EPA. Registration assures that pesticides will be properly labeled and that, if used in accordance with specifications, they will not cause unreasonable harm to the environment. Use of each registered pesticide must be consistent with use directions contained on the label or labeling.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), US EPA, <http://www.epa.gov/agriculture/lfra.html> (last visited Feb. 6, 2012). The National Forest Management Act basically calls for the management of renewable resources, as they exist on land of national forests. *National Forest Management Act*, U.S.

wildlife, NEPA does require federal agencies to conduct comprehensive research assessments of the environmental consequences of their actions and then prepare environmental impact statements.¹⁷⁹ Such environmental impact statements would seem to ensure the protection of predator species.¹⁸⁰ However, given the law's present structure, the government's consistent failure to evaluate ADC's effect on biodiversity is absurd.¹⁸¹

D. Economic Costs and the Taxpayers' Subsidy

It must be considered whether the average taxpayer would support his/her tax dollars being used to fund a predatory animal control program that is merely fueled by the push of western ranchers and their concern over their livestock, when such a program participates in the aforementioned killing methods and incurs drastic, negative effects. It seems reasonable to assume that the taxpaying public would choose not to sustain such a program, especially when the program is arguably ineffective. Wildlife Services, unlike most federal agencies, provides no transparency for taxpayers who are making an effort to evaluate which activities they are supporting, whether such activities should be worth a portion of the USDA's budget, and what the environmental impact of these activities might be.¹⁸² Maurice Hornocker, a predator research expert, stated that the predator control program has “. . . all been a waste of money and animals. In many cases, the best control is no control at all. They will limit their own numbers if you leave them alone.”¹⁸³

FOREST SERVICE, <http://www.fs.fed.us/emc/nfma/index.htm> (last visited Feb. 6, 2012).

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² Andrew Wetzler, *Wildlife Services: The Most Important Wildlife Agency You've Never Heard Of*, NRDC STAFF BLOG (Feb. 6, 2012, 6:03 PM), http://switchboard.nrdc.org/blogs/awetzler/wildlife_services_the_most_imp.html.

¹⁸³ Edvenson, *supra* note 5, at 50. Hoch argues that subsidized cattle ranching is the root of the problem. Hoch, *supra* note 12, at 171. Despite the fact that ranchers are waging a relentless war, leading the ADC to destroy all types of predators, thereby creating ecological imbalances, the federal government continues to subsidize cattle ranching, using up millions, if not billions of dollars. *Id.* at 171-72.

In 1971, \$8 million was spent on the predator control program.¹⁸⁴ By 2001, \$23.3 million in federal expenditures of taxpayer dollars was used to fund animal damage control activities.¹⁸⁵ As of the 2010 fiscal year, Wildlife Services spent an estimate of \$126 million overall on the ADC program, including all western and eastern states.¹⁸⁶ Therefore, funding for this program continues to increase, not to mention that the structure of the budget for the ADC program tends to obscure the full cost to taxpayers of specific predator control methods.¹⁸⁷ On June 16, 2011, Republican Congressman John Campbell, of California, and Democratic Congressman Peter DeFazio, of Oregon, proposed an amendment to eliminate the inappropriate federal funding of the USDA's Wildlife Services's predator control program, which was to save taxpayers \$11 million.¹⁸⁸ The amendment would also have appropriately returned the responsibility for protection of livestock and property to its owners by making them rely on their own resources.¹⁸⁹ Unfortunately, the House defeated this proposed amendment, meaning that an exorbitant amount of taxpayers' dollars will continue

¹⁸⁴ Donahue, *supra* note 145, at 272.

¹⁸⁵ *Id.*

¹⁸⁶ *Wildlife Services' 2010 Program Data Reports: Table A Resource Category Listing of WS Operations Line Item Funding and Cooperative Funding*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/prog_data/2010_prog_data/index.shtml (last visited Feb. 6, 2012).

¹⁸⁷ Wetzler, *supra* note 182.

¹⁸⁸ CONGRESSMAN JOHN CAMPBELL, *RELEASE: Campbell Proposes \$11 Million in Taxpayer Savings*, http://www.campbell.house.gov/index.php?option=com_content&view=article&id=3011:release-campbell-proposes-11-million-in-taxpayer-savings&catid=41:press-releases&Itemid=300032 (last visited Feb. 6, 2012); *see also U.S. House of Representatives to Vote on Animal Welfare Issues in Agriculture Spending Bill*, THE HUMANE SOC'Y OF THE U.S., http://www.humanesociety.org/news/press_releases/2011/06/congress_house_agriculture_spending_061411.html (last visited Feb. 6, 2012); *see also Ralph Maughan, Group Urges Calls to Defund Wildlife Services*, THE WILDLIFE NEWS (Feb. 6, 2012, 11:43 AM), <http://www.thewildlifeneeds.com/2011/06/13/group-urges-calls-now-to-defund-wildlife-services/>.

¹⁸⁹ *Id.*

to subsidize the USDA's Wildlife Services's predator control program.¹⁹⁰

V. THE ROLE OF PHILOSOPHY AND ENVIRONMENTAL ETHICS

While in certain instances, such as for health and safety reasons, it might be imperative to control the populations of certain predatory or other intrusive species, is it really our place as the human species to exercise nearly unlimited and unnecessary control over other nonhuman species whenever we feel it necessary? Or, rather, should we treat other species as possessing rights, given that they play such a vital role in the overall stability of our diverse and interdependent ecosystem? If something is going to change with respect to the treatment of predatory animals by Wildlife Services, it is imperative that ethical, along with ecological, considerations play a role in humans' treatment of other species.

At the most basic level, the idea of the stewardship of nature should be adopted as an influential norm.¹⁹¹ All species should be approached with an attitude of greater humility.¹⁹² Aldo Leopold wrote that "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."¹⁹³ Leopold's land ethic focuses on endorsing ethical behavior that is not centered on humans.¹⁹⁴ He also wrote that "a system of conservation based solely on economic self-interest is hopelessly lopsided."¹⁹⁵ Applying these ideals to the predatory animal killings exercised by Wildlife Services, Leopold would likely argue that such activities are hindering and possibly eliminating the "integrity, stability, and beauty of the biotic community."¹⁹⁶ The

¹⁹⁰ Michael Markarian, *The 2011 Congressional Year in Review for Animals*, ENCYCLOPEDIA BRITANNICA: ADVOCACY FOR ANIMALS (Feb. 6, 2012, 11:32 AM), <http://advocacy.britannica.com/blog/advocacy/2011/12/the-2011-congressional-year-in-review-for-animals/>.

¹⁹¹ Edvenson, *supra* note 5, at 80.

¹⁹² *Id.*

¹⁹³ ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 10 (6th ed. 2009).

¹⁹⁴ *Id.* at 11.

¹⁹⁵ *Id.* at 10.

¹⁹⁶ *See supra* note 193.

killing methods of Wildlife Services are human centered, focusing on the preservation of the output from western ranchers, a mainly economically centered aim, which Leopold would consider to be “hopelessly lopsided.”¹⁹⁷

Even the works of Emerson and Thoreau suggest that the wilderness should be respected and preserved “because our lives and our conception of ourselves will be enhanced—in a spiritual sense—if we learn to appreciate [nature] for what it is and we learn how to live in harmony with it.”¹⁹⁸ The ideals of Emerson and Thoreau could be considered as forethoughts of individuals like John Muir and those adopting the notion of biocentrism.¹⁹⁹ John Muir, founder of the Sierra Club,²⁰⁰ believed that environmental policy should reflect the notion that nonhuman species possessed rights, which should be respected by the human species.²⁰¹

Most notably and as a precursor to the values of John Muir, Jeremy Bentham was one of the first philosophers to focus on the rights and interests of animals. Bentham’s main point was that animals have the capability to suffer.²⁰² He reasoned that, if animals have the capability of enjoyment and suffering, then animals should also be considered as possessing rights or interests.²⁰³ This philosophical ideal allowed Bentham to then insert animals into the

¹⁹⁷ PERCIVAL, *supra* note 193, at 10. “Wolves are no longer ‘bad’ for intrinsic reasons, they are ‘bad’ because they may pose a risk to the economic interests of beef and wool producers.” Goble, *supra* note 8, at 112. “Leopold [stated]: ‘The cowman who cleans his range of wolves does not realize that he is taking over the wolf’s job of trimming the herds to fit the range. He has not learned to think like the mountain. Hence we have dustbowls, and rivers washing the future into the sea.’” Donahue, *supra* note 145, at 268-269. In addition, Donald Worster, environmental historian, compared the consequences of introducing livestock in the West to the ‘explosive, shattering effect of all-out war.’ *Id.*

¹⁹⁸ See PERCIVAL, *supra* note 193, at 13.

¹⁹⁹ Biocentrism is an environmental perspective that places a high value on all living things, such as all mammals or all animals that are capable of feeling pain. *Id.* at 9.

²⁰⁰ John Muir founded the Sierra Club in 1892. Since this time, the grassroots environmental organization “has been working to protect communities, wild places, and the planet itself.” SIERRA CLUB, <http://sierraclub.org/welcome/> (last visited Feb. 6, 2012).

²⁰¹ See PERCIVAL, *supra* note 193, at 13.

²⁰² Hoch, *supra* note 12, at 181.

²⁰³ *Id.*

utilitarian²⁰⁴ equation.²⁰⁵ Animal rights activists would agree with Bentham's philosophical theory, as support of the theory denotes "speciesism" and creates a moral obligation for the human species to treat all other species with respect for their rights and interests.²⁰⁶

If we are to see a change in Wildlife Services's predatory animal control program, then principles like those embraced by Leopold, Bentham, and Muir must be adopted. Society must push Congress to move away from a "management ethic," that being one focused on the use of the environment, to an "ethic of the environment," focused on its preservation and conservation.²⁰⁷

VI. MOVING FORWARD: WHAT SHOULD THE FUTURE HOLD FOR THE ANIMAL DAMAGE CONTROL ACT?

Given the vague quality of the ADC itself, the fact that Wildlife Services has the responsibility of implementing the ADC, and the fact that Wildlife Services has adopted its own directives for its implementation, it is important to evaluate whether or not these directives are actually being met. As previously mentioned, it is Wildlife Services's aim to seek wildlife damage strategies that are "biologically sound, environmentally safe, and socially acceptable."²⁰⁸ It seems safe to say, based off of the numerous costs associated with the implementation of the ADC, that Wildlife Services's is failing to meet its own specified directives.

First, Wildlife Services's strategies for predatory animal control are not biologically sound. The use of trapping devices, including the leghold trap and snares, in addition to causing the slow

²⁰⁴ Utilitarianism "holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure and the absence of pain, by unhappiness, pain and the privation of pleasure." JOEL FEINBERG & RUSS SHAFER-LANDAU, *REASON AND RESPONSIBILITY* 596 (12th ed. 2005). Bentham created the ethical formula: "Each to count for one and none for more than one." *Id.* at 656. Rather, this quote can be described as saying that "the interests of every being affected by an action are to be taken into account and given the same weight and the like interests of any other being." *Id.*

²⁰⁵ Hoch, *supra* note 12, at 181.

²⁰⁶ *Id.*

²⁰⁷ See PERCIVAL, *supra* note 193, at 14.

²⁰⁸ See *supra* note 46 and accompanying text.

and painful deaths of predatory animals, is significantly affecting the well being of other fauna by capturing non-target species. This argument of non-selectivity is not only supported by the use of trapping devices. Compound 1080 and M-44s lead to the indiscriminate and excessive killing of predatory and non-predatory animals. Various non-target species, including human beings, have been the victims of M-44s. In addition to the non-selective effect of predator control poisons, the years of subjecting predatory animals to this method of lethal control has led them to become wary and resistant to these devices, which means that these devices may no longer be serving their ultimate purpose. Of course, aerial chasing and shooting of predatory animals also leads to non-selective and indiscriminate killings of non-problematic animals. Finally, while denning is an exceptionally cruel killing method, it does not actually target the so-called “problem” animals because it only does away with the younger generation of predators, thereby affecting the continued existence of the entire species.

The widespread effect on overall biodiversity is the major biologically unsound aspect of Wildlife Services’s predator control. The targeted destruction of predatory animals seriously affects the balanced relationship between predator and prey. By killing off keystone predators, other animals, such as elk and mesopredators, explode in numbers. Subject to these increases, the numbers of shrubs and plants are affected by being taken over by such omnivorous and herbivorous animals. Finally, the targeted destruction of predatory animals has led to the subsequent endangerment of numerous animals, thereby leading to the necessity of revitalization and reintroduction of threatened and endangered species.

Second, the predatory animal control methods of Wildlife Services are not environmentally sound. The extreme toxicity of Compound 1080 and M-44s, coupled with the negligent management of these poisons by Wildlife Services poses significant environmental risks, including the substantial risk to human and animal safety. Furthermore, the loss to biodiversity previously described is an environmental effect that leads to the ultimate imbalance of the overall ecosystem.²⁰⁹

²⁰⁹ See section IV(C)(2).

Third, Wildlife Services's predatory animal control methods are not socially acceptable. States, such as California, have taken the lead in banning leghold traps and poisons from use in predatory animal control, which provides some proof that such methods are not as acceptable as Wildlife Services would suggest them to be. Moreover, the proposal made by Congressmen John Campbell and Peter DeFazio to eliminate the use of Compound 1080 and M-44s at the federal level is another example of the negative characterization of lethal methods and their lack of acceptability. Finally, if the taxpaying public was made more aware of the amount of taxpaying dollars that are being spent on the continuation of this program and the methods employed, it is likely that more individuals would insist that changes be made to the existence and implementation of the ADC.

The Natural Resources Defense Counsel ("NRDC") has stated that "Wildlife Services's predator control work cries out for reform."²¹⁰ The NRDC recommends five steps moving forward with the ADC: (1) bring more transparency, (2) embrace science, (3) reassess the program's environmental impact, (4) end the worst of the killing methods, and (5) require the use of nonlethal prevention methods.²¹¹ First, Wildlife Services should be required to make information about their practices and the costs of these practices more readily available to the public. This will enable the public with a greater understanding of the practices they are endorsing in handing over their taxpaying dollars, in addition to having the ability to make more informed decisions about whether or not they want to continue to sit idly by and watch Wildlife Services continue with these predator control methods or decide to protest against them. Second, "[a] more scientific and rational approach to predator control will balance environmental health and human safety against the demands of a few narrow interests, [such as those in agribusiness]."²¹² In consideration of this, the question becomes whether or not the NWRC is failing in its research to develop the best methods for predatory animal management by merely sticking to the already

²¹⁰ *Reform Wildlife Services' Predator Control*, NATURAL RES. DEF. COUNSEL, <http://www.nrdc.org/wildlife/animals/wolves/predatorcontrol.asp> (last visited Feb. 6, 2012).

²¹¹ *Id.*

²¹² *Id.*

established methods and not seeking to develop new and innovative ways to deal with the damages associated with predator animals. Third, the NRDC asserts that Wildlife Services is operating under an environmental impact statement that was finalized in 1994 and, therefore, should be required to update this report so that it contains a thorough evaluation of all environmental effects associated with predatory animal control.²¹³ Fourth, Wildlife Services needs to ban the use of the poisons Compound 1080 and M-44s due to their hazardous and cruel effects on animals and potentially non-targeted species.²¹⁴ Fifth and finally, Wildlife Services should be required to engage in nonlethal methods of control, only deferring to lethal control methods when absolutely necessary.²¹⁵

If any of these proposed changes made by the NRDC are going to be met in the future, it is imperative that the focus of society's ethical paradigm begins to shift away from pure agricultural and economic concerns to considerations of the species' interconnectedness and species' rights. This will require substantial citizen education and awareness about the ADC. If human beings focus more on the ethical management of the environment, with more respect for the overall ecological system, only then can environmental policy and Congressional reform begin to reflect significant changes to predatory animal control, such as limiting predator control to the use of nonlethal methods.

Therefore, if it is unrealistic to be optimistic that the ADC be completely abandoned, Congress should at least amend the ADC to limit it to nonlethal methods of predatory animal control. Using the control of the coyote as a primary example, "lethal control can be replaced by nonlethal or more selective control methods such as olfactory repellants, antifertility agents or chemosterilants, aversive conditioning, anticyote electric fencing, . . . synthetic sonic and visual coyote repellants, and coyote frightening devices."²¹⁶ Livestock owners might also turn to predator-proof fencing and night

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ *Reform Wildlife Services' Predator Control*, NATURAL RES. DEF. COUNSEL, <http://www.nrdc.org/wildlife/animals/wolves/predatorcontrol.asp> (last visited Feb. 6, 2012).

²¹⁶ Coggins, *supra* note 4, at 862.

penning.²¹⁷ However, certainly one of the most reasonable alternatives to resulting to lethal control of the coyote population would be focusing on improving the management of livestock by owners using guard dogs and full-time sheep herders.²¹⁸ While Wildlife Services might insist that nonlethal methods are not as effective for control of predatory animals and, therefore, not as feasible or limited, this is no excuse for abandoning its directive for “biologically sound, environmentally safe, and socially acceptable” methods for predator damage management.²¹⁹ Wildlife Services claims that it “supports and promotes scientific research to develop and improve wildlife damage management . . . methods and to provide science-based information for [wildlife damage management],”²²⁰ but Wildlife Services NWRC needs to work harder to create predator control methods that are more in line with its major directive, so as to foster the interconnected relationship between human beings and the predatory animal population. Maybe it is time for Wildlife Services not merely to rely on the NWRC for more innovative methods but turn to independent researchers who could provide a more objective analysis.²²¹

Given the enumerated costs associated with the ADC, it seems that it is time for Congress to finally address the nature of an act that has been ignored for numerous decades. Even if it is true that the predator control program cannot be abandoned completely because some predators do, in fact, cause damage to important resources, this does not mean that Congress should stick to the methods that were instituted over eighty years ago when the ADC was passed. Like the states of Connecticut, New York, Oklahoma, Rhode Island, Vermont, Illinois, New Hampshire, North Carolina,

²¹⁷ *WS Program Directives: Selecting Wildlife Damage Management Methods*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICE, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Feb. 6, 2012).

²¹⁸ *Id.*

²¹⁹ *See supra* note 46.

²²⁰ *WS Program Directives: Wildlife Services Research and Methods Development*, USDA ANIMAL AND PLANT HEALTH INSPECTION SERVICES, http://www.aphis.usda.gov/wildlife_damage/ws_directives.shtml (last visited Apr. 23, 2012).

²²¹ Edvenson, *supra* note 5, at 73-74.

and South Carolina, which have in some way limited or banned the use of trapping devices for predatory animal control, Congress should follow suit with these examples and provide significant limitations or complete bans on the use of trapping devices at the federal level for predator damage management. Furthermore, like the states of California and Washington, which have made it unlawful to use Compound 1080 and M-44s for poisoning any animal, Congress should mirror this significant change by also outlawing the use of these hazardous and harmful poisons by any person, including the agents of Wildlife Services. Therefore, it is imperative that support is garnered for the Compound 1080 and Sodium Cyanide Elimination Act, as proposed by Congressmen Peter Defazio and John Campbell, so that the excessive and indiscriminate killing of predators by poisons is abolished. This act will also provide a safer environment for humans no longer having to worry that these toxic poisons are being released into the environment as a result of their use or improper management by Wildlife Services.

VII. CONCLUSION

The Animal Damage Control Act of 1931 has a long history; however, it is unfortunate that it is a history that has remained static and unchanged. As history, science, and the environment have evolved, the ADC also should have advanced to address the many issues arising throughout the history of its implementation. Although Wildlife Services claims that its main directive is to manage the conflict between human beings and predator animals by utilizing predator control methods that are “biologically sound, environmentally safe, and socially acceptable,” the methods they employ are far from meeting these directives.²²² The use of trapping devices, Compound 1080 and M-44s, denning, and aerial chasing and shooting all result in sizeable and unnecessary harm to predatory animals, the environment, and potentially to human beings. The unnecessary pain and suffering of predatory animals, the inevitable harm to non-target species, the overall loss to biodiversity and imbalance in predator and prey relationships, and the misuse of taxpayers’ dollars are among the negative consequences resulting

²²² See *supra* note 46.

from the implementation of the ADC. Congress needs to finally address these documented consequences with an amendment to the ADC. Whether this amendment turns on complete abolition of the ADC or conversion to only using nonlethal methods, at the very least Congress needs to pass the Compound 1080 and Sodium Cyanide Elimination Act as its first, promising step. It is with the passage of this bill, and other subsequent advancements, that Wildlife Services can actually begin to accomplish the directives it has declared for its agency.

