Against Kansas’s Top Dog

Coyotes, Politics, and Ecology, 1877–1970
In 1967, as college campuses across the nation erupted in sometimes violent debate over the conduct of the war in Vietnam, the Kansas governor’s office became the focal point of a bureaucratic struggle in a different kind of war that was being waged—a war against the most troublesome predator in the state, the coyote. The essential question to be settled was simple. Would the State of Kansas maintain authority over coyote control or would livestock interests succeed in bringing in the federal Predator and Rodent Control Division (PARC) of the Department of Interior to control the wily beasts? On September 22, 1966, Kansas governor William H. Avery signed an agreement with the Bureau of Sport Fisheries and Wildlife that allowed federal predator control personnel to conduct operations in Kansas. The wrath and suspicions of Kansas stock raisers fell squarely on the coyote, and it was the coyote population that the federal hunters from PARC targeted. By 1967 Avery’s agreement set off a surprisingly fierce debate in Kansas over which level of government should oversee predator control in the state and about the very need for predator control.¹

An examination of this 1967 conflict provides an opportunity and a framework to consider the history of coyote control in Kansas as well as the attitudes of Kansans who supported attempts to destroy coyote populations. Out of the particular historical and ecological conditions in Kansas came a particular form of coyote control by 1949 that later would be hailed by environmental groups as an ecologically responsible alternative to widespread poisoning programs found in other parts of the American West. It was this Kansas “trapper” system that Avery’s 1966 agreement with PARC threatened to undermine. Further, this study will trace the growth of a coalition of different groups that gradually came to see coyotes as increasingly valuable either as an important piece of the ecological puzzle that is Kansas or as an object of sport hunting. This coalition shaped the outcome of the 1967 debate over coyote control. This survey of changing attitudes in Kansas toward predators such as the coyote also serves to illustrate how Kansans viewed and valued the plains landscape in which they lived.

Avery chose politics over his personal ambivalence about federal hunters disrupting Kansas ecology. In a 1965 letter to a supporter of PARC intervention, he wrote that the issue of coyote control did “raise the question of the advisability of reducing or disturbing a balance that has become pretty well established among our wildlife creatures.” Avery’s motives aside, his signing the agreement, when it became public knowledge in 1967, set off a wave of public debate over the issue of coyote control in Kansas.3

Robert Docking’s victory over Avery in the gubernatorial election of 1966 threw the future of the PARC agreement into doubt. The Kansas City Star published an article in April 1967 urging Docking to break the agreement made by his predecessor. This article, entitled “Kansas May Trade State Predator Plan for Federal Killers,” openly attacked the plan and the federal hunters who would track down Kansas coyotes. The Star called PARC “a Franken-stein army of Federal exterminators” that would “exterminate, as much as possible, the coyote from the Kansas prairie.” This critical article revealed the Avery agreement for the first time to most Kansans and led to a flood of letters to Governor Docking.4

One issue addressed in this correspondence that proved critical to the debate was the very need for predator control. Were coyotes a significant threat to

The 1966 agreement between Avery and PARC had developed in part from expediency. Governor Robert Docking’s papers suggest that Avery’s signing of the 1966 agreement had as much to do with politics as with coyote predation. Avery, a Republican, was in a close race for reelection with Democratic candidate Docking, himself a member of the Kansas Livestock Association. Avery, seeking to solidify the support of the livestock industry, likely signed the agreement with his reelection in mind. Kansas stock raisers, as they had for more than a century, called for harsher predator control methods, and undoubtedly many were pleased with the prospect of federal hunters roaming the prairies supplementing the state extension service and its coyote control efforts. In fact, Avery had met with officials of the Kansas Livestock Association in 1965, and they had provided him with a list of legal steps to follow to enter into an agreement with PARC.2

2. For the accusation of politics, see Harold Knock to Robert Docking, February 14, 1967, Predator Control file, box 141, Docking Papers, Kansas Collection, University of Kansas Libraries, Lawrence, hereafter referred to as Docking Papers. For the Kansas Livestock Association meeting, see A.G. Pickett to William Avery, August 12, 1965, Forestry, Fish and Game Commission file, Correspondence, William Avery Administration, Records of the Governor’s Office, Library and Archives Division, Kansas State Historical Society, hereafter referred to as Governor’s Records (Avery).


the livestock industry? Was the coyote threat of a sufficient magnitude to justify importing federal hunters to protect Kansas livestock interests? Not surprisingly, many Kansas stock raisers, particularly sheep owners, answered in the affirmative. One rancher, after complaining that Kansas state control programs were unable to keep ravenous coyotes in check, argued that a “surplus of coyotes also takes its toll on useful game birds and animals.” For Kansas stock raisers in 1967, coyotes clearly did not fit the category of a useful animal.5

Labeling coyotes as unworthy “varmints” was hardly a condition peculiar either to the 1960s or Kansas. From the beginnings of white settlement in North America, predators such as wolves, bears, mountain lions, and coyotes were seen as enemies of agriculture and progress as they consumed animals considered valuable such as livestock and game birds. Frederick Wagner, a wildlife expert active in the study of predator control in the 1970s, described this attitude in his Coyotes and Sheep:6

In most value systems, the production of food and income is ranked above the esthetic and recreational. And the same singleness of purpose which has plowed under major parts of continents has not questioned the extreme reduction, if not elimination, of predatory animals.

American attitudes toward predators are easy to understand. Predators stood in the way of the domestication of the North American landscape. If the wilderness was to turn a profit and progress to sweep westward, so the argument went, natural obstacles such as wolves, bobcats, and coyotes, much like Indians, had to give way before the American people. Kansas, like the rest of the West, had to be “won” from predators to make it safe for livestock and profitable for farmers and ranchers.6

Earl Kansas settlers first turned their attention to the gray wolf that roamed the prairie and watched the incoming wagons with curiosity. When Union Pacific men and hordes of sport hunters decimated the bison herds of the Central Plains, ranchers quickly filled this herbivore’s niche with domestic animals such as cattle and sheep as well as animals more vulnerable to predation such as turkeys and chickens. The hunger of wolves and coyotes did not diminish with changes in the dominant herbivore species on the Kansas plains, and not surprisingly some wild canids turned to domesticated livestock for food. As a result, early farmers and stockmen who had no more use for wolves than farmers had for ravenous grasshoppers called for their destruction. What followed was an all-out war, on the gray wolf in particular. In 1864 the Kansas legislature empowered individual counties to offer bounties for the ears or the scalps of wolves. These bounties encouraged Kansans to poison buffalo meat with strychnine and leave it for hungry wolves. Professional “wolfers” would poison large numbers of carcasses and periodically return to gather the dead predators. One such expedition using this technique gathered 340 wolf pelts. Although the last known wolf taken in Kansas fell in the 1890s, widespread poisoning efforts had decimated the wolf population by the 1870s, leaving the coyote as the most important predator in the state.7

With the extinction of the wolf, the smaller coyote was next to feel the ire of Kansans seeking to consolidate their conquest of the plains landscape. Wolves and coyotes in Kansas were linked both semantically and ecologically. For many years coyotes were called “wolves” or “prairie wolves,” thus the historical record is littered with references to wolves long after true wolves were extinct in the state. In terms of eco-

5. Doug Wildin to William Avery, August 24, 1966, Governor’s Records (Avery).
logical relationships, coyotes benefited from the ex-
mination of the wolf, which eliminated a key com-
petitor for carrion, small mammals, and livestock. It
is likely that wolves acted as a restraint on coyote
populations by reducing the levels of available food.
Further, the coyotes’ smaller size, hunting habits
(alone as opposed to in packs), and impressive abili-
ty to adapt to new conditions would make coyote
control efforts much more difficult than those against
the wolf. As folklorist J. Frank Dobie said about the
coyote, “no other wild animal of historic times has
shown itself so adaptable to change.”

Control efforts against coyotes naturally flowed
from the fact that coyotes at times attack domestic
livestock. In the Kansas State Board of Agriculture’s
Annual Report for 1873, one rancher wrote that wolves
(likely coyotes) had killed nearly seventy sheep on his
ranch in four years. In 1905 David Lantz, a Kansas
stock raiser who had joined the Federal Division of
the Biological Survey (a predecessor agency of PARC),
wrote that coyotes, along with “worthless” domestic
dogs, were the “chief discouragement” to sheep
ranching.

Anticoyote attitudes grew to the level of character
assassination. In 1872 Kansas Magazine concluded
that the coyote “is universally conceded to be a
sneak, a thief, and an arrant coward . . . in whose
whole history there is not one redeeming fact.” No
less a luminary than Horace Greeley lumped scorn
on the Kansas coyote in 1869:

The paltry coyote [sic], to which the name prairie-wolf has universally been given, since it has in its
ture nothing of the wolf but its ravenous appetite, and would hardly be a match for a stout fox or racoon [sic], lingers near you, safe in its own
worthlessness and your contempt.

Wolves, while hated, occasionally received respect
from their hunters. Kansans bestowed no such honor
on the lowly coyote. The cautious hunting practices
of the animal, especially its tendency to scavenge
alone, inspired this rhetoric.

Discouraging words about the coyote continued
to be heard after the turn of the century. In 1932, the
Topeka Daily Capital wrote, “though related to the dog and the wolf, the coyote bears about the same relation to the genuine wolf that the buzzard does to the eagle, or the chicken thief to
the modern bank cashier.” Having compared the coy-
ote with various depression-era lowlifes, the article
questioned the courage of the species: “He is yellow
in color and characteristics.” In 1944 the wife of one
rancher called coyotes “the Hitlers and Tojos” of her
county and claimed that coyotes had devastated her
turkey and chicken flocks.

These negative stereotypes of the coyote are pred-
icated upon the assumption that a causal connection
existed between coyote population levels and coyote
predation on domestic livestock. This connection is
an important one to explore since attempts to control
or even eradicate the coyote in Kansas are inspired by
the belief that coyotes significantly threaten domestic
livestock. Accordingly, if one reduced coyote num-
bers, livestock losses happily would be reduced.

What, then, has been the historic impact of coyote
predation on domestic livestock in Kansas?

Any effort to assess the accuracy of this assump-
tion in Kansas is necessarily difficult due to a lack of
data. However, by combining what data do exist
along with current understandings of coyote behav-
or and livestock management techniques, it appears
that the intensity of anticoyote attitudes in Kansas
was unwarranted and the link between coyote popu-
lations and livestock losses exaggerated.

8. Brown, “Mammal Extinction in Kansas,” 1; H.T. Gier, Coyotes in
Kansas, Kansas State College Agricultural Experiment Station Bulletin 393
(Manhattan: Kansas State College of Agriculture and Applied Science,
August 1957), 3.
9. Jas. O’Neill to Alfred Gray, December 22, 1873, in “Sheep Hus-
bandry,” in Kansas State Board of Agriculture, Annual Report, 1873
(Tope-
ka: State Printing Works, 1874), 140; David Lantz, The Relation of Coyotes
to Stock Raising in the West, USDA Farmers’ Bulletin 226 (Washington,
369; Horace Greeley, “The Plains, As I Crossed Them Ten Years Ago,”
Harper’s New Monthly Magazine 38 (1869): 789–95, reprinted in Fleharty,
11. “Kansas Coyote Being Hunted Relentlessly,” Topeka Daily Capital,
January 3, 1932; “Coyotes—the ‘Hitlers’ and ‘Tojos’ of Woodson County
Farmers,” Buffalo Enterprise, October 5, 1944.
12. For a discussion of these assumptions, see Wagner, Coyotes and
Sheep, 17.
Data from the Kansas State Board of Agriculture support this conclusion. From 1894 to 1922 the board tabulated reports of sheep lost to predation by coyotes and wild dogs (Table 1). The data suggest that at no point during the period surveyed did sheep losses from coyotes exceed 0.84 percent of the sheep population of Kansas and usually ran about 0.5 percent. Admittedly, the data have some holes: farmers and ranchers could have underreported coyote predation to the board. Also, if evidence of predation is a carcass, it is difficult to differentiate between wounds from predation or scavenging after death from other causes. Nevertheless, when joined with other evidence, these data suggest the malevolent reputation of the coyote is exaggerated.13

When compared with the rest of the American West, coyote predation rates in Kansas are extremely small. One of the more reliable studies of the Intermountain West suggests that 3 to 10 percent of the sheep population was taken annually in the early 1970s. This disparity in coyote predation between Kansas and the Intermountain West is due to different management techniques. In Kansas, with a lack of federal, open-range land, sheep remained under the close watch of their owners. In western states such as Utah or Montana, sheep ranged more widely on public land and thus were more vulnerable to predation.14

Biological studies conducted at Kansas State University in the 1950s shed further light on the economic impact of coyote predation on Kansas livestock owners. Biologist H.T. Gier examined the contents of a number of coyote stomachs to determine the com-

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<th>Year</th>
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Data compiled from the annual reports of the Kansas State Board of Agriculture, 1894–1922.

13. To determine how significant coyote losses were in terms of the entire sheep population, Kansas Board of Agriculture estimates for the total number of sheep in Kansas were matched with the appropriate yearly coyote predation figure.

position of the average Kansas coyote’s diet. He found that more than half of that diet was rabbit and that 27 percent of coyote food was carrion, which included domestic livestock. While Gier could not determine the exact percentage, he speculated that most of the livestock consumed by coyotes was already dead at the time of consumption. Cattle and sheep that died of disease or exposure made tasty meals for opportunistic coyotes. Gier’s work suggested that the average coyote did not attack domestic livestock on a regular basis.¹⁵

Although Gier’s findings undermined the stereotype of the ravenous coyote thirsty for the blood of succulent livestock, they did not completely exonerate the species of all charges. Gier concluded that coyotes were responsible for losses of sheep, calves, and other livestock worth close to a million dollars annually during the 1950s. Breaking these figures down per farm, Gier calculated that coyotes cost each farm around $12.35 in lost livestock per year. Gier further complicated the issue by noting that coyotes consumed large numbers of rodents and rabbits that ate forage needed by domesticated herbivores. He estimated that the value of forage saved by hungry coyotes preying on rodents and rabbits at twenty-one dollars per coyote per year. By filling a particular ecological niche—consuming forage-eating rodents—in the Kansas landscape, coyotes partially “paid” for their predation on livestock. Gier’s work clearly paints a more complicated picture of coyote predation than that held by many Kansas stockmen.¹⁶

If, as these studies suggest, the economic impact of coyote predation on Kansas livestock was relatively slight, anticoyote attitudes and policies apparently originated from a false premise. But leaving the argument here makes the matter too simplistic and does Kansas farmers and ranchers a disservice. So how do we reconcile individual rancher accounts of vicious coyote attacks with the above conclusions? Wildlife management studies provide a possible answer.

Studies of coyote behavior suggest that individual coyotes become comfortable with taking sheep or chickens while the large majority of coyotes abstain from attacking domestic stock. In his 1957 study Gier noted that coyote attacks, while not significant industry-wide, could devastate a single farm. Individual coyotes could become “killer” animals that subsisted largely on livestock. That is, individual coyotes, not the average animal or the species as a whole, were re-

¹⁶. Ibid., 31, 24, 35. Ecologists and ranchers are inclined, due to education and experience, to instinctively argue on different sides in the predator control debate. Nevertheless, granting that ecologists tend to argue for the protection of predatory animals against ranchers who call for their destruction does not invalidate the evidence amassed by individuals such as Gier who suggest that coyote predation was not as significant as stockmen claimed.
sponsible for the majority of livestock predation. Reports of heavy predation on farms were thus likely the result of individual animals doing significant damage rather than widespread attacks by large numbers of coyotes.  

Sporadic evidence of heavy coyote predation coupled with coyote tracks around the carcasses of livestock who perished from natural causes seems to have been enough for ranchers to transfer guilt to the whole species. Stockmen did not have to conduct surveys to assess the true economic significance of the coyote on their operations. Word of mouth, personal experience, and the general reputation of the animal led many Kansans to argue that coyotes were a dangerous threat to the agricultural enterprise of Kansas. As Gier wrote, “most of the estimates [about coyote predation] were no more than guesses.” Gier further commented that the attacks of individual coyotes were “augmented by various fantasies that have developed around the secretive and cunning nature of the coyote” in the minds of ranchers. Cold statistical analysis and findings that coyote predation did not significantly endanger the livestock industry in Kansas did little to ease the minds of ranchers who had encountered an animal accustomed to consuming sheep or chickens.  

Nevertheless, aside from legitimate complaints such as these against the coyote and the generally poor reputation of the animal, evidence suggests that the coyote became a scapegoat for many struggling Kansas sheepmen. Throughout the late nineteenth and early twentieth centuries, hopes were high that large flocks would come to fill the prairies and that sheep were the key for agricultural success for the common man. One Lawrencian in 1909 claimed that “Every farmer with 160 acres could support a small flock of sheep that would turn the waste products of the farm into gold while in their stead they are feeding thousands of hungry wolves on the choicest meats they can produce.” Coyotes, so the argument went, not economics or the market, were the major inhibiting factor preventing the expansion of the sheep industry.  

Invisible market forces and uncertain prices forced sheepmen throughout the West to reduce overhead, which made their flocks more vulnerable to the very visible coyote attacks blamed for the state of the industry. In his book Saving America’s Wildlife, Thomas Dunlap has made this argument. In Kansas, as nationwide, sheepmen reduced to bare minimums the amount spent on herders, fences, and sheds. As one sheepman explained in 1901, “Hired labor is our greatest expense.” By cutting costs, sheepmen made their flocks more vulnerable to those coyotes accustomed to taking domestic stock.  

The historical record contains examples of Kansas sheepmen accusing fellow operators of engaging in dangerously lax herding practices. In 1872 the Kansas State Board of Agriculture noted that “there has been a depletion of large flocks through wanton neglect and exposure, and a merciless abandonment to be the prey of wolves and vagabond dogs. . . . Neither pecuniary considerations nor the instincts of humanity have been sufficient to induce careful and humane treatment [of sheep].” One hundred years later, in a fully settled Kansas, the accusation sounded the same when an observer wrote to Governor Robert Docking: “It appears to me that the only folks having problems with predators are those who do not properly care for their livestock. . . . These farmers blame the predators, namely the coyote for their laziness or neglect.” Certainly all Kansas sheepmen did not neglect their flocks; however, the evidence suggests that poor herding techniques made flocks easier prey for coyotes and consequently augmented the coyote’s image as a destroyer of livestock.  

18. Gier, Coyotes in Kansas, 23.  
Further, evidence suggests that wild dogs, as much as coyotes, attacked Kansas sheep. The data in Table 1 indicate that sheep losses by dogs often exceeded the number of sheep killed by coyotes. The dog problem was so severe in the late 1800s that one rancher wryly noted, “As there are now 74,905 dogs in the state, it is eminently proper that the number of sheep should be speedily increased. Less than a mutton-and-a-half to the dog is a wholly inadequate twelve months supply for any healthy canine.” As Gier observed, “it appears that many serious losses sustained by sheep raisers were from dogs rather than coyotes.”

One must, however, examine the motives of those who challenged ranchers’ claims that coyote predation threatened the survival of individual ranchers and entire sectors of the Kansas livestock industry. By the 1960s, in debates with ranchers throughout the West, biologists and conservationists often championed the cause of the predators. H.T. Gier worked for Kansas State Agricultural College, which after 1949 ran the Kansas extension trapper service that targeted individual troublesome animals. Gier’s conclusions that individual coyotes were a threat and not Gier and the Kansas State Board of Agriculture as well as other anecdotal data make a compelling case that overwhelsms possible bias.

The evidence presented here strongly suggests that the underlying assumption behind coyote control efforts—that coyotes significantly reduced livestock populations in Kansas—has been fundamentally flawed from the time of settlement. Statistically, coyote predation never impacted the Kansas livestock industry to the level of significance that rhetoric suggested. Certainly single coyotes could severely damage individual operations, and these incidents provided ranchers with the evidence they needed to continue to indict the entire species. Individual stories of predation could spread throughout a community of livestock owners breeding feelings of hatred against the entire species. The coyote also seems to have served as an effective scapegoat to cover up more fundamental economic problems in the Kansas sheep industry. Finally, ample evidence suggests that much of the damage to livestock attributed to coyotes actually may have been caused by wild dogs.

Whether coyotes truly deserved their reputation as livestock killers mattered less than the fact that Kansas stockmen believed the animals did slaughter livestock and thus acted upon that belief. Kansas stockmen led the call for action against the animal

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from the first coyote bounty in 1877 through the dispute over federal hunters in 1967. The first antipredator bounty in Kansas was passed by the state legislature in 1864 and targeted the gray wolf. In 1873 one sheepman wrote, “If the Legislature would enact a law offering a good bounty for killing wolves, and placing a heavy tax on dogs, wolves would soon disappear, and Kansas would become the best sheep raising State in the West.” Further, he reasoned, the bounty eventually would pay for itself as “more taxes would be raised from sheep than would be paid for the destruction of wolves after the first year.”

By 1877 the Kansas legislature responded to calls to control coyote predation with a new bounty law. This revised bounty legislation escalated the war against predators in Kansas by empowering county commissioners to issue bounties of one dollar for “every wolf, coyote, wild-cat, or fox, and five cents for each rabbit, that shall be killed within said county.” The hunter had to deliver the scalp of the animal, including both ears, to the county clerk for payment. Bounty supporters assumed that financial incentives to take predators would reduce predation upon domestic livestock. Large bounty payouts by Kansas counties, it was thought, served as a forecast of a predator-free and livestock-supportive state.

Coyote populations seemed oblivious to changes in the Kansas bounty law. In 1885 the legislature increased the bounty to three dollars per coyote. By 1907, probably to reduce the financial stress on county coffers by bounty claims, the legislature returned the bounty to one dollar. However, coyote populations seemed to remain constant despite bounty hunters’ efforts, and sporadic coyote predation on livestock continued.

The high financial cost of the Kansas coyote bounty and its apparent ineffectiveness in reducing coyote numbers led some Kansans to question the bounty system. David Lantz of the U.S. Biological Survey and a former Kansas rancher, was particularly concerned about fraud. He noted that Kansas counties paid out more than twenty thousand coyote bounties in 1905 alone. As Lantz noted, assessing the home ground of a coyote pelt brought in for payment was a difficult task.

Fraud undoubtedly played some role in the high numbers of coyote bounty claims in Kansas. One exceptional case of fraud was exposed in 1930 when a group of New Yorkers, in an attempt to collect the bounty, were caught bringing into Kansas coyote pelts discarded by New York furriers. The Kansas Official, the official organ of the Kansas Official Council, estimated that Kansas counties paid this group fifty thousand dollars in bounty payments. While the overall importance of fraud paled before the stubborn persistence of coyote population numbers in inflating coyote bounty appropriations, it seems certain that Kansas counties paid bounties on many coyotes that had never seen Kansas soil when alive.

Kansas ranchers thought that the ineffectiveness of the bounty system in reducing coyote numbers was linked to the amount of the bounty and not the system itself. In 1911 livestock owner R.C. Johnston of Lawrence noted the problem: “The number of wolves is increasing rapidly. Our county records show that we are paying out more money each year for the increasing number of scalps while the losses of farmers are growing in like proportion each year.” He called for the legislature to dramatically increase the bounty to five dollars which would lead “every man and boy who has a day off to hunt and trap.” Further, Johnston argued, hunting coyotes was good for the soul as “it stimulates the boys to hunt for wolves to earn some extra money and affords them good fun and exercise.”

While stockmen like Johnston did not convince the Kansas legislature to increase the amount of the bounty, they did successfully resist attempts to substantially change it until the 1940s. By 1941 Kansas county commissioners were paying out more money in bounties than they could afford. As a result, coun-

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23. O’Neill to Gray in “Sheep Husbandry,” 140. Here the writer is likely engaging in the aforementioned semantic fusion of “prairie wolves” (coyotes) and the gray wolf. The original 1864 bounty law is quoted in Fleharty, Wild Animals and Settlers on the Great Plains, 195.
24. Kansas Laws (1877), ch. 76.
25. This summary of bounty changes is in Gier, Coyotes in Kansas, 73.
ty officials petitioned the Kansas legislature to create a fund to compensate county governments for coyote bounties. The legislature complied and appropriated twenty-five thousand dollars of state money for the bounty system later that year.\textsuperscript{29}

State subsidies of the coyote bounty quickly proved to be inadequate. In 1941 alone coyote bounty claims exceeded the state fund by ten thousand dollars. By 1944 unpaid coyote bounty debts became so troublesome that the State of Kansas liquidated all bounty claims at the rate of forty-two cents on the dollar leaving county governments to cover the rest of the claims for that year. Despite the bounty on their scalps, coyotes continued to breed and overburden the system designed to bring about their destruction.\textsuperscript{30}

Kansas newspapers in the 1940s frequently reported on the coyote bounty fiscal crisis. The Kansas City Times humorously noted in 1944 that “Kansas authorities are looking for some means of exercising birth control over the coyotes or permission to build a fence around three sides of the state to keep Nebraska, Colorado, and Oklahoma coyotes out of Kansas.” In 1946 the Lawrence Daily Journal-World noted that the state only had two outstanding debts: World War I veteran bonus payments and coyote bounties.

In 1949 the Kansas legislature finally moved to substantively reform the expensive coyote bounty system. While support for the system was strong enough to prevent its abolition, the legislature established more state control. In a series of bills, the state required that any counties wishing to pay bounties for predatory animals must first contact Kansas State Agricultural College (later Kansas State University) and request the services of college extension agents to recommend and organize a countywide predator control program. Only after counties followed these steps would the State of Kansas match a one-dollar contribution from county governments for a total bounty of two dollars. Further, the payment of bounties was no longer compulsory. By the 1960s some counties unwilling to engage in cooperative predator control programs with Kansas State University stopped paying bounties altogether. The flaws in the coyote bounty system led the state to take a more active role in predator control by authorizing the Kansas Extension Service to help coyote-stricken counties rather than the state continuing to satisfy the inexhaustible fiscal needs of the existing bounty system.\textsuperscript{32}

The financial collapse of the bounty system and the general ineffectiveness of coyote control efforts in reducing animal populations can only be explained by examining coyote physiology. Current knowledge suggests that coyote reproductive rates vary with the availability of the food supply. In areas containing few coyotes and abundant food sources (rodents and rabbits in particular), female coyotes have been known to produce seven to eight offspring. In areas where coyotes are more abundant and the prey species less numerous, litters average between two and four animals. If coyote reproductive rates vary with the ratio of available food and existing coyote populations, a problem for coyote control efforts becomes apparent. By reducing coyote populations through poisoning or bounty-hunting, coyote control efforts actually increase coyote reproductive rates if the food supply remains the same. With fewer animals (due to control efforts) and more abundant food per animal (due to fewer competing coyotes) female coyotes produce more offspring and offset the population decline caused by poisoning and hunting. Thus, even in Kansas where average annual takes of coyotes may have approached 40 percent of the total population, overall coyote populations remained fairly constant as killed animals were replaced by pups each year. This remarkable reproductive adaptability of the coyote made the Kansas bounty system too expensive and frustratingly ineffective in reducing coyote numbers.\textsuperscript{33}

\textsuperscript{29} Gier, Coyotes in Kansas, 73.

\textsuperscript{30} For mention of the quick exhaustion of the 1941 appropriation, see “Casualties in Kansas Coyote War,” Topeka Daily Capital, February 1, 1943. The liquidation of claims is in “Coyote Scallops Leave Counties $21,000 Short,” Topeka State Journal, August 15, 1944.

\textsuperscript{31} “Kansas Looking For A Way to Control the Spread of Coyotes,” Kansas City Times, August 16, 1944; “Need Better Plan to Kill Coyotes,” Lawrence Daily Journal-World, July 18, 1946.

\textsuperscript{32} Kansas General Statutes (1949): 718–19; Kansas Laws (1961), ch. 30. A summary of these laws is in Governor’s Records (Avery).

The 1949 coyote control system stressed individual actions against individual animals as opposed to attempts to eradicate the entire species. It was a pragmatic compromise between the real needs of owners protecting their stock from individual animals and fiscal burdens that could not keep pace with coyote physiology as seen in the older bounty system.

In effect, the Kansas stockmen who convinced Governor Avery to sign the 1966 agreement allowing federal intervention in Kansas coyote control efforts were questioning the extension trapper system set up in 1949. The trapper program, administered by Kansas State Agricultural College, evolved to the point that extension agents did as much training of local ranchers to deal with troublesome individual animals as they did killing of predators. Nevertheless, persistent calls came for federal intervention in predator control in Kansas. Precedents had been set earlier in the century for this kind of federal involvement, but those projects had been temporary. During World War I employees of the Department of Agriculture’s Bureau of Biological Survey aided Kansas State Agricultural College in a campaign against rodents. In 1941 a federal hunter cooperated with the Comanche Livestock Association and killed 217 coyotes. In 1948 PARC entered into a cooperative agreement with the Kansas Forestry, Fish and Game Commission in which seven hunters killed 514 coyotes in six months. This agreement ended in June 1948 for unclear reasons.

PARC did not leave the state quietly in 1948. In the Kansas State Board of Agriculture 1948 report PARC agent A.E. Gray wrote an article entitled “Predator and Rodent Control in Kansas” that clearly called for continued federal help in predator control programs. Gray noted that Kansas was one of only a few western states that had not entered into a substantive cooperative agreement for continual federal involvement against unwanted animals like prairie dogs and coyotes. Gray’s article is a testament to the frustration of a federal agency precluded from action and thus unable to build its constituency in Kansas.

PARC was the latest manifestation of federal predator control efforts in the West designed to support the livestock industry. Beginning in 1905 the U.S. Forest Service, responding to stockmen’s complaints, began to destroy predators on grazing lands within national forest boundaries. In 1915 Congress authorized the Department of Agriculture’s Bureau of Biological Survey to conduct campaigns against predators throughout the West. Gradually this work was concentrated in the Department of Interior through their Predator and Rodent Control Division (PARC) of the Fish and Wildlife Service, which was the agency seeking permanent access to Kansas in 1966.

Some Kansans obviously agreed with Gray’s 1948 assessment that Kansas required federal help to control coyotes. In 1961, with the apparent approval of Governor John Anderson, the Kansas Forestry, Fish and Game Commission signed another temporary agreement with PARC. Under this agreement PARC aided sheep owners of Sherman and Wallace Counties in protecting their herds from prairie wolves. This federal intervention triggered the involvement of E. Raymond Hall, the head of the State Biological Survey at the University of Kansas.

Hall was no stranger to debates over predator control. He had been an assistant to Joseph Grinnell at the Museum of Vertebrate Zoology at the University of California at Berkeley before coming to Kansas and had shared Grinnell’s view that the federal government was exterminating, not controlling, predators. In Hall’s view, such extermination was wasteful and unnecessary. From the 1930s through the 1970s Hall repeatedly testified before Congress protesting federal predator poisoning programs that took both innocent and guilty animals.

35. Ibid., 132, 135.
37. A copy of the agreement is in Forestry, Fish and Game Commission file, Correspondence, John Anderson Administration, Records of the Governor’s Office, Library and Archives Division, Kansas State Historical Society, hereafter referred to as Governor’s Records (Anderson). References to actions taken under the agreement are made in Lewis Garlick to John Anderson, November 26, 1962, copy in U.S. Department of the Interior file, Correspondence, Governor’s Records (Avery).
Clearly concerned about the 1961 working agreement with PARC, Hall wrote several letters to Kansas Forestry, Fish and Game Commission chairman George Moore. The proper course of action, he insisted, was to “direct Kansans wanting help, and outlanders wanting to help with predatory mammal control, to the Extension Specialist... at Manhattan [Kansas State University].” For Hall, the Kansas system that relied on expert trappers to eliminate single animals clearly was preferable to federal broadcast poisoning programs.39

Moore’s responses to Hall’s letters indicate that fiscal concerns as well as pressure from livestock interests led to the 1961 PARC agreement. Moore wrote that if PARC were not invited to handle the coyote problem in Kansas, “additional pressure would be applied to get this department into such a project.” Clearly, the Forestry, Fish and Game Commission wanted federal funds to cover the intensified predator control efforts desired by Kansas stockmen. Kansas officials tried to achieve the best of both worlds: satisfy Kansas livestock interests without dipping into state coffers.40

Hall’s letters to PARC in 1962 led the federal predator control agency to reconsider its activities in Kansas. Although the actual letters are yet to be found, other correspondence suggests their existence. A 1962 letter from PARC Acting Regional Director Lewis Garlick noted, “certain people in Kansas have protested the conducting of predator control in the state to the Assistant Secretary of the Interior.” This being the case, Garlick continued, “we feel that we should no longer conduct predator control work in Kansas” until stronger agreements were signed. A subsequent letter from Moore to Governor Anderson suggested that Hall was a prominent protester.41

It is likely that Hall mentioned to PARC the 1961 Kansas statute that placed the exclusive authority to use the deadly poison 1080 (sodium fluoroacetate) in the hands of the chairman of the Forestry, Fish and Game Commission. This poison was PARC’s favorite tool in its fight against coyotes. It was first used in Kansas by PARC officials in Seward, Comanche, and Clark Counties in 1950 under another temporary agreement. PARC treated bait at the ration of 1.6 grams of poison per hundred pounds of meat with several thousand coyotes dying in these counties as a result. In 1961 Hall’s opposition to federal efforts in principle and restrictions on use of 1080 seems to have forced PARC to cancel the 1961 agreement.42

The growing number of Kansans who hunted coyotes for sport also were concerned about possible widespread use of 1080. Organized coyote hunts occurred in Kansas as early as 1878. It seems likely that...
as deer and antelope became scarce in Kansas, hunters found that coyotes made challenging replacements. Oddly enough, when deer began returning to Kansas by the early 1960s, some coyote hunters complained. “Every time the dogs strike a good trail,” one hunter observed, “a deer passes by and the dogs go leaping and bounding after it, leaving the wolf or coyote trail to get cold.”

These coyote hunts sometimes bordered on the comical. Automobiles were used in hunts as early as 1909. By the 1950s veteran coyote hunters had converted old trucks into “coyote wagons” that would bound through the brush and over the potholes of the Kansas prairie at breakneck speed in search of the elusive animals. Once hunters spotted the coyote, trained dogs (often greyhounds or greyhound mixes) were released from the wagon to chase the animal down. H.T. Gier estimated that Kansas coyote hunters in 1957 kept eight hundred packs of coyote hounds.

Coyote hunts were largely for sport as they were not cost effective, particularly after the demise of the compulsory bounty system. In 1952 one hunter calculated the cost to each participant in a coyote hunt to be fifty dollars per hunt as opposed to a total return of six dollars on each coyote (largely from the pelt). Nevertheless, one sportsman called coyote hunting “Kansas’ Greatest Sport.”

Although coyote hunters might at first glance seem unlikely allies of those who would defend the coyote against federal control efforts, sportsmen were very active in the debate over Governor Avery’s 1966 agreement with PARC. Avery’s agreement was more definitive than earlier agreements signed in the 1950s and 1960s, and the 1967 *Kansas City Star* article stirred up public debate that previous agreements had escaped. Coyote hunters participated in this debate. In particular, they feared that PARC use of 1080 would kill as many hunting dogs as coyotes. James Schmidt wrote to Governor Docking in 1967 articulating the hunter’s position: “I have eleven trailhounds and I wouldn’t want to lose any of them because of someone trying to poison coyotes.” Further, Schmidt complained that too much poisoning would deprive the coyote hunters of animals to hunt.

Another coyote hunter noted that he spent $150 each for his coyote-hunting greyhounds, and rather than lose his dogs to poison he proposed that, “if we coyote hunters knew the counties that are so thick in them we would be more than happy to go there to hunt them.” Coyote hunters joined a broader coalition of Kansans opposed to PARC involvement in Kansas predator control. Following the lead of individuals such as E. Raymond Hall, Kansans cognizant of the coyote’s role in Kansas ecosystems wrote to Governor Docking urging him to terminate the PARC agreement signed by Governor Avery. An examination of these letters provides a glimpse at the ecological sophistication of Kansans in 1967.

The letters argued that coyotes served an important role on Kansas prairies. One student from Kansas State University wrote that coyotes were “important in the balance of nature” and that coyote destruction would lead to increased populations of troublesome rodents and rabbits. The biology department of Kansas State Teachers College argued in a petition that the Kansas livestock industry “is not sufficiently well informed in the discipline of ecology to make sound judgements concerning the far-reaching effects of indiscriminate predator control” and, by implication, neither was PARC.

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44. For the hunt and its cost, see “You Get a Fast Ride and Bumps when You Join a Coyote Hunt,” *Kansas City Star*, January 20, 1952; dog pack figures from Gier, *Coyotes in Kansas*, 35. For an interesting discussion of these hunts, see Richard Rhodes, *The Inland Ground: An Evocation of the American Middle West* (New York: Atheneum, 1970), particularly 124–42.
The termination of the 1966 PARC agreement enabled the much maligned coyote to survive efforts aimed at its destruction.

W hile it is not particularly surprising to see college faculty members and students articulating ecological ideas, Kansans outside academia echoed their arguments in defense of the coyote. Individual Kansans joined environmental groups such as the Kansas Ornithological Society, the Kansas Academy of Science, and the Wichita Audubon Society in opposing the Avery agreement. One rancher’s wife recalled in a letter “the story of farmers who decided to have a 100% kill of coyotes one year. They did. The next year, the rodents took the crops.” The Docking letters contain many references to maintaining the “balance of nature.” Docking supported this argument, writing, “I believe the balance of nature must be allowed to function.” While today’s ecologists, influenced by chaos theory, find ideas such as “the balance of nature” naïve, this conception allowed many Kansans to find a place for coyotes on the Kansas plains. Governor Docking terminated the Avery agreement in 1967 and asked Hall to draft a letter that would notify PARC of the termination.49

One should resist, however, the conclusion that an increased ecological consciousness played the decisive role in defeating the Avery agreement. Protests of Kansas stockmen and antifederal sentiment also had an impact. Many Kansans opposed PARC intervention on the grounds that they represented any federal intrusion into their affairs. Mrs. Harold Harnar pleaded that Docking not let “the Federal government take over our state.” One rancher protested, “I don’t want them, or any darn Federal employee on mine [land].” Another Kansan sarcastically commented that “If government men do come in to kill coyotes and if they succeed, you can be sure that they will look around for something else to help us with.” Perhaps the most colorful antifederal letter came from H. Howland who noted that he was “born and raised on a farm and the coyotes and wolves that give trouble are located in Washington, D.C.” Such antifederal attitudes made opposing the Avery agreement an opportunity to stand for Kansans’ rights against an intrusive Washington-based bureaucracy.50

Other Kansans opposed PARC intervention because they believed that the state-run trapper system


based through Kansas State University was sufficient. A letter from Ben Powell called for the support of “our own state control which has proved so satisfactory.” Several other letters to Governor Docking reflected the comparison of costs between state and federal programs cited in the Kansas City Star article in 1967. The Star reported that the Kansas system cost the state $17,000 in 1965 as opposed to federal “cooperation” in Oklahoma that cost $250,000 with little reduction in coyote numbers.51

Even Kansas livestock owners were somewhat divided over the Avery agreement. One Kansas Livestock Association member quit the organization when it called for increased federal use of 1080. Ralph Allen noted, “I have farmed and raised livestock for many years and have had very little loss from coyotes.” Rancher R.G. Shafer wrote that his family had a large herd of cattle and did not believe that “coyotes and other wildlife has been a detriment to us.” Cattlemen, with their stock less vulnerable to predation, were more likely to oppose the Avery agreement than were sheepmen. Nevertheless, some stockmen joined the anti-PARC coalition of Kansans who opposed federal intervention in state affairs, those who wanted to maintain the cheaper state-run trapper system, those who believed in the ecological importance of the coyote, and those who wished to preserve coyote hunting as Kansas’s “greatest sport.”52

The state-run trapper system preserved by Docking was held up before Congress as a predator control model in several hearings in the early 1970s. In 1971 E. Raymond Hall noted the twenty-two-year history of success in destroying troublesome individual animals at low cost and with little loss among nontarget animal populations. National environmental organizations like the Friends of the Earth also endorsed the Kansas coyote control system at hearings in 1973. Tom Garrett, wildlife director of the Friends of the Earth, went so far as to recommend that new federal efforts “should be modeled much more than before on the extension programs in Kansas and Missouri.”53

Environmentalists were attracted to the Kansas trapper system of coyote control because of its selectivity. By abandoning widespread poisoning programs, the Kansas system avoided the destruction of nontarget wildlife that occurred throughout the West. The Kansas legislature in 1949 saw the main virtue of this selectivity as its cost efficiency rather than as its ecological benefits. Nevertheless, this selectivity served the Kansas trapper system well as the nation entered the post-Silent Spring era.54

This history of coyote control efforts in Kansas reveals several key points. First, the unquestioned assumption created in the nineteenth century that all coyotes threatened the livelihood of Kansas stock raisers and therefore deserved destruction is not supported by the preponderance of the evidence. Secondly, a number of Kansans came to question this assumption that had guided Kansas coyote control efforts, and by 1967 these more ecologically minded Kansans joined with a coalition of unlikely allies including hunters and antifederal zealots to keep PARC poisoning programs out of the state. Ultimately, the very existence of the debate over the 1967 PARC agreement is testimony to the ability of the coyote to survive efforts aimed at its destruction. The coyote, like aridity, remains an integral part of the plains landscape with which Kansans continue to grapple and where nights continue to echo with the yips and barks of Kansas’s top dog.

52. For the ex-Kansas Livestock Association member, see Fred Lauber to Robert Docking, June 9, 1967, Docking Papers; Ralph Allen to Docking, April 7, 1967, ibid.; R.G. Shafer to Docking, March 29, 1967, ibid.
54. In her book Silent Spring (1962), Rachel Carson warned against the dangers of increasing chemical (particularly pesticide) use in the United States. Her book helped direct public opinion against widespread use of chemical poisons as well as pollution more generally. In the wake of Carson’s work, widespread use of chemicals or poisons faced increasing opposition across the nation, including Kansas. Programs like the Kansas trapper system, which avoided indiscriminate poisoning of animals, were thus regarded as more environmentally benign.