

FROM A HOWLING WILDERNESS TO A HOWLING TOUR:
REVISITING THE WOLF
IN NORTH CAROLINA, 1585-2000

A thesis presented to the faculty of the Graduate School of Western Carolina University
in partial fulfillment of the requirements for the degree of Master of Arts.

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May 2003

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Acknowledgements

I'll start with where I am. I thank the Western Carolina University (WCU) Graduate School for two years worth of Graduate Assistantships and their accommodation in special circumstances. I need to thank many folks in WCU's Hunter Library. First, the folks at the Circulation Desk who got me the books and articles, and those who put the books back on the shelf. Second: all the Reference Librarians staffing the desk were helpful, but Becky Kornegay was the most resourceful and helpful for a budding North Carolina historian. On more than one occasion she went out of her way to inform me of documents I would never have looked for. Lastly, I want to thank George Frizzell and Priscilla Proctor in Special Collections. The resources available there have helped me on more than one occasion, and George's local knowledge was indispensable throughout my tenure at WCU.

It has been a pleasure to work with my fellow graduate and undergraduate students, and faculty at WCU. Past and current graduate colleagues Susan Abram, Rob Ferguson, Lorie Holter, Daniel Menestres, Linda Hoxit Raxter, and Michael Dean Smith all made the graduate-learning experience...well, an experience. Dr. Jim Manning, in the Communication & Theater Arts Department asked me to explore Cold Mountain and Lake Logan, located in a small part of Haywood County, for a video documentary project. I hope to find a way to return to that physical area and topic of research. In the History Department I am indebted to Dr. Gael Graham, who dedicated time to improving

her students' writing. The "New Crew," Elizabeth G. McRae and Dr. Richard D. Starnes, provided me with much needed advice, inspiration, and humor. I am grateful for the History Department's travel and research fund, and Kathy Orr's assistance in getting me the most from it. Professor Emeritus Max Williams and his wife Sarah made my second year so comfortable that I felt like I was really "home."

My thesis committee, Dr. Scott Philyaw, Dr. Daniel Pierce, Dr. Vicki Szabo, and Dr. Curtis Wood, contributed an array of knowledge to a unique committee. From colonial and twentieth century America, to historical-archeology and Appalachia, the advice keeps my mind turning. The door to Scott's office (which only had a door before the History Dept. was temporarily relocated) was always open. He graciously shared his time to talk about history, previous trades, and avocations. Scott's immediate interest in my research, trouble-shooting, attention to my questions, and praise of my writing will not be forgotten.

And then the families of both sweat and blood. I am indebted to my western North Carolina clan who helped me to see the region, the world, and my own self in so many different ways over the past six years. From the backpacks and bike-seats, to the climbing ropes and tool-belts, they all led back to comfortable furniture and hospitable porches in dark coves or cornfields where the homemade food, beer, music, and conversation flowed freely. I'll treasure those days and nights while enjoying the new directions all those little growing children will take us on our next trips into the woods!

I would like to acknowledge two early readers in this project. First, Michael J. Provost, who will soon receive his juris doctorate, has provided nearly fifteen years of

wit, criticism, and conversation that never allowed for dull moments. Additionally, I wish to thank Lila Rose Grisar for support and for nourishing my soul over the last year-plus. My siblings, Gabrielle and Vince, blazed many paths for me that made my life easier. I am grateful. They both taught me much about responsibility, but also that growing up brings a sister and brothers closer once everyone is finally an adult.

My mom and dad deserve the Energy-Ball Award: for rolling with my evolving eating habits, shining through all the emergency room visits, and bouncing back after discovering my ability to break just about anything that they owned. I could never repay them for all of their support and trust in my endeavors. I thank them for teaching me about working hard, loving properly, and finding my own way. With that, I dedicate the culmination of my recent schooling to my parents: Caroline and Vincent Manganiello.

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Abstract

FROM A HOWLING WILDERNESS TO A HOWLING TOUR: REVISITING THE WOLF IN NORTH CAROLINA, 1585-2000

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This thesis is about wolves and humans that shared a landscape in North Carolina. How and why did wolves disappear? And how did one species, the red wolf (*Canis rufus*), become re-established within this southeastern landscape in the twentieth century?

Europeans, Native Americans, and Africans have had historically complex relationships with wild wolves and deer, as well as with domestic livestock and dogs in North Carolina. Factors that contributed to these relationships included cultural perspectives of natural resources; the international trade in animal skins; livestock grazing techniques; and canid diseases. After 1715 a long and costly bounty campaign was funded at the county level, and was designed to eliminate the economic liability presented by wolves. Wolves were hunted and bounties paid until almost 1900 by western North Carolina counties.

By the middle of the twentieth century, national trends in ecological science and wildlife management contributed to an atmosphere conducive to saving America's wildlife. Professional academics and scientists identified the red wolf as a rare and endangered species. Protected by the Endangered Species Act after 1973, the red wolf

was saved from extinction by a groundbreaking, federally funded reintroduction project. After wolves had been actively removed from the North Carolina landscape for over 400 years, the red wolf was reintroduced into the eastern and western parts of the state after 1987.

Introduction

“Wolves have long been fodder for the imagination”¹

Before hiking through the Wind River Range I had been informed that wolves were suspected of inhabiting these jagged Wyoming peaks. I had not – and still have not – ever seen or heard a wolf in the wild. So when I saw a canid running on the beach half-a-mile away I was optimistic, perhaps ecstatic, that I had seen a real live wolf. Eager to move forward along the lake’s rim and with the hopes of finding some paw prints in the sand, one of my expedition mates told me not to get too expectant. Nate, a former graduate student in wildlife biology, was pretty sure we had seen a coyote. Upon reaching the tracks he confirmed his hypothesis, and he traced a circle as big as an open human hand around the coyote print. That, he said, is the size of a wolf print. Later that night the coyotes howled around the lake campsite. By that time I was probably more embarrassed than disappointed about letting my imagination run along the water’s edge. In retrospect, my quick jump to the conclusion that I had seen a wolf is not different from modern imaginations of *Canis lupus*. When most people think of wolves today they probably think of fairy tales, pristine wilderness, Disney movies, the ‘wolf in sheep’s clothing’ and other endless clichés, or a single wolf with blood-shot eyes

¹ George Ellison, “Mountain Voices: Wolves Have Long Been Fodder for the Imagination,” *The Smoky Mountain Times* (Bryson City, North Carolina), 3-9 October 2001, 50.

licking its chops after playing the game of natural selection. Within this mix of roles, attitudes about wolves continue to change. Science, technology, politics, history, and social activism play major parts in this transformation. And because of this collective transformation, wolves are once again regaining respect in mainstream America, particularly in North Carolina.

Interpreted as a useless and ‘bad’ animal by Europeans, the American wolf embodied the traits of a scavenger and a loafer that lived freely off the land or domestic livestock owned by humans. In popular recollection the howling wolf inspired fear. Unlike useful, ‘good’ animals such as wild deer or domesticated hogs that provided bones, skin, and meat for human economic utility, the wolf did not represent purpose. Rather, the bad wolf symbolized wildness and a barrier to Western civilization. This wild species of canis inhabited the deep dark woods of the medieval mind and a new mysterious North American territory. Historically Europeans and Euro-Americans persecuted wolves. Many historians have accepted this monochromatic view, but the North Carolina encounters detailed in my research revealed something more intricate.

A complex relationship developed between humans, wolves, livestock, legislation, the trade in deerskins, and domestic dogs in colonial North Carolina.² Early legislation specifically protected sheep, hogs, cattle, and deer from predators including humans. Bounty laws targeted bad animals – including wolves, wildcats, panthers, and bears – that represented economic liabilities for agricultural interests and were perceived as personal threats. Wolves were never considered good by any official means, but

² Throughout my work I will refer to animals and humans as separate entities. I acknowledge that humans, *Homo sapiens*, are animals, but choose to retain common terminology for simplicity.

ironically by the end of the nineteenth century wolf scalps became commodities and wolves were 'cultivated' by professional bounty hunters. The historical record demonized wolves but also established that 'man's best friend,' the domestic dog, did not always adhere to notions of domesticity. The relationship between human and dog ultimately contributed to the persecution of wolves in colonial North Carolina and served to confuse human attitudes toward wild canids.

According to the documented oral history of the Cherokee Indians, the natives interpreted the wolf differently from Euro-American settlers. However, as the Indians adopted European animal husbandry and Euro-American grazing practices in the eighteenth century, the Cherokee began to hunt wolves and even hire non-Indians to kill the predators.³ Cherokee Indians and Euro-American settlers were not the only humans to hunt wolves in colonial North Carolina. African slaves were specifically enlisted to hunt predators that preyed upon their masters' livestock. The 1741 North Carolina law governing slaves and servants did not curtail a master's right to employ and arm a slave as a predator 'control officer' on private property. The second bounty act, and following acts, passed by the colonial legislature in 1748 entitled slaves and Indians to collect bounties on wolves, panthers, bears, and wildcats.⁴

The state of North Carolina provides an excellent case study for researching wolf and human interactions. Documents and resources that span the colonial period to the

³ James Mooney, *History, Myths, and Sacred Formulas of the Cherokees*, ed. George Ellison (Asheville, NC: Historical Images, 1992), 448; John R. Finger, *The Eastern Band of the Cherokees, 1819-1900* (Knoxville: University of Tennessee Press, 1984), 62.

⁴ Walter Clark, ed., *The State Records of North Carolina*, Volumes XI-XXVI (Winston and Goldsboro: Printers for the State of North Carolina, 1895-1905), Volume XXIII: Page 201, 288-89.

modern era illustrate a unique history about wolves. North Carolina was not alone in its colonial treatment of wolves. For example, the Massachusetts, Pennsylvania, and Virginia colonies imposed bounties on wolves prior to North Carolina.⁵ However, North Carolina stood alone as the only political unit that legally removed the wolf from the landscape for two hundred years, and then actively participated in the reintroduction of the federally protected and endangered red wolf (*Canis rufus*) in accordance with the Endangered Species Act (1973). While other states participated in the Red Wolf Recovery Program's captive breeding projects since the mission's inception in the 1970s, only North Carolina has hosted a large wild population since 1987.

The history of wolves and North Carolina remains largely untold. Scattered accounts and mention of wolves abound, often without citations. A major goal of my work included collecting and documenting such sources. Ultimately, I seek to interpret what the state legislative history and popular accounts pertaining to wolves in North Carolina say about human attitudes towards wolves.

The historical record does not detail with clarity, continuity, or scientific results what species of wolf inhabited North Carolina. Thus, this is a story about wolves in North Carolina before 1900, and more specifically the red wolf after 1960. Other questions I asked included: How did humans react to wolves as bad animals? How, and when, did these attitudes transform and pave the way for the Endangered Species Act? Southern and Appalachian environmental history offers only glimpses of the interactions

⁵ Rick McIntyre, *War Against the Wolf: America's Campaign to Exterminate the Wolf* (Stillwater, MN: Voyageur Press, 1995), 29-37; Valerie M. Fogelman, "American Attitudes Towards Wolves: A History of Misperception," *Environmental Review* 13, Issue 1 (1989): 63-94.

between humans and wild canids. I propose to move wolves to a more central place in the history of North Carolina by using state bounty legislation and other documents, such as early wolf accounts by explorers and colonists, federal land management documents, personal papers, and newspapers. Secondary resources will provide the necessary framework. Scholarly texts on environmental and southern history will be supplemented by texts written for larger audiences by conservation and nature writers.

Among the secondary texts, Albert Cowdrey wrote one of the first southern environmental histories. *This Land, This South: An Environmental History* (1983) focused upon “the ways that man and land have shaped each other in a little corner of the world.”⁶ A medical and southern historian, Cowdrey discussed four themes that developed in his loosely defined region of the South between the colonial and modern eras: the impact of disease; the transformation of the landscape at the hands of a tri-racial society; the exploitation of southern natural resources by southerners; and the relationships between local, state, and federal government. Cowdrey devoted much attention to the relationships between wild game hunted by humans, land use, livestock, and predator problems experienced by southern colonists. However, due to his wide-angle approach Cowdrey applied his conclusions to a large region, rather than a specific localized area.

Timothy Silver followed Cowdrey in examining the environmental history of the southern United States when he completed *A New Face on the Countryside: Indians, Colonists and Slaves in the South Atlantic Forests, 1500-1800*. Silver limited his

⁶ Albert E. Cowdrey, *This Land, This South: An Environmental History*, rev. ed. (Lexington: The University of Kentucky Press, 1996), 8.

environmental study to the Piedmont and Atlantic coast. He focused upon the interactions between a tri-racial colonial society: Europeans, African slaves and Native Americans in Virginia, North and South Carolina, and Georgia. Silver did not include a survey of the Appalachians in his study, despite Euro-American arrival in the mountains before the American Revolution. Silver did include important accounts of colonists' reactions to familiar and unfamiliar animals. Examining the Euro-American impact upon the landscape, Silver discussed how the slaughter of deer for hides contributed to an increased population of predators as abandoned deer carcasses became an accessible food source that attracted wolves and other carnivores.⁷

Donald Edward Davis, Daniel S. Pierce, and Margaret Lynn Brown contributed further studies that revealed the centuries-long human interaction and impact upon the landscape of the Southern Appalachians. These three authors discussed early land use, the convergence of European, Indian and African cultures, new interpretations of public land preservation, and what role the re-creation of wilderness played in the Southern Appalachians parks movement.

Donald Edward Davis adapted Albert Cowdrey's timeframe and Timothy Silver's cultural approach in his environmental history of the southern Appalachian Mountains region. Davis' study traced the cultural exchanges between the Mississippian cultures (the precursor of the Cherokee) and their subsequent encounters with Spanish conquistadors, Africans, and Euro-American settlers. The section of his work that pertained to 'pioneer culture' of the early 1800s illuminated how Euro-Americans

⁷ Timothy Silver, *A New Face on the Countryside: Indians, Colonists and Slaves in the South Atlantic Forests, 1500-1800* (Cambridge: Cambridge University Press, 1990), 176.

adopted Native land uses, and Natives assumed Euro-American animal husbandry. Davis further revealed the inter-relationships between humans, other animals, and the landscape. He presented examples of human dealings with useful animals such as wild deer and domesticated hogs that contributed to economic prosperity for Indians and Euro-Americans.⁸

For example, the Cherokee became increasingly involved in the Euro-American deer hide trade and contributed to the near elimination of deer in some areas. Also, settlers who grazed their hogs on common land relied upon the natural surplus of acorns, or mast of the American chestnut trees to fatten their animals before the annual drive to southern plantation markets. Davis discussed the problems associated with predators and problem animals such as wolves that preyed upon livestock and squirrels that damaged crops.⁹ However, Davis did not discuss Indian or Euro-American attitudes towards bad wildlife, such as wolves, in detail. The Cherokee revered the wolf as a hunting partner and named one of their seven clans after the wild animal. After they became dependent upon domesticated European livestock they hunted wolves in a restrained manner.

After Donald Edward Davis' study of the larger Appalachian region, two more recent Appalachian environmental histories concentrated upon a specific place during the twentieth century. Daniel S. Pierce and Margaret Lynn Brown separately explored the history of the Great Smoky Mountains National Park. *The Great Smokies: From Natural Habitat to National Park* demonstrated how humans harnessed nature's economy to serve

⁸ Donald Edward Davis, *Where There Are Mountains: An Environmental History of the Southern Appalachians* (Athens: University of Georgia Press, 2000).

⁹ *Ibid.*, 114.

their economic agendas for centuries. From raising hogs and logging, to entrepreneurial boosterism and environmental activism, Pierce's narrative illustrated the multiple roles the Great Smokies landscape served individuals. This narrative focused upon the social and political history of the Smokies from settlement through the official dedication of the National Park.¹⁰

Margaret Lynn Brown's chronological narrative began where Pierce concluded. *The Wild East: A Biography of the Great Smoky Mountains* highlighted the complexities of resource management since the park's establishment.¹¹ Pierce and Brown addressed the conflicts between commercial boosters and wilderness advocates, and how these interests influenced the Southern Appalachian park movement and establishment of the Great Smoky Mountains National Park. Both authors also revealed the previously untold story of the families that lived within the newly established park boundaries. These mountain residents were forced to move because they were seen as backwards, and like Native Americans, they were viewed by visitors from outside of the region as the human equivalent of bad animals in need of domestication. Brown demonstrated the absurdity in these claims. She highlighted the irony in the park's subsequent creation of living exhibits that celebrated the traditional 'pioneer' culture of the mountains in places such as Cades Cove, the location of significant market and economic accumulation prior to the establishment of the park. Brown further discussed the management of wildlife, and the reintroduction of red wolves to the park in 1991. She included this project as an example

¹⁰ Daniel S. Pierce, *The Great Smokies: From Natural Habitat to National Park* (Knoxville: University of Tennessee Press, 2000).

¹¹ Margaret Lynn Brown, *The Wild East: A Biography of the Great Smoky Mountains* (Gainesville: University Press of Florida, 2000).

of the Great Smoky Mountains National Park's attempt to establish a "wild east," or re-create wilderness in the Appalachians. While Cowdrey, Silver, Davis, Pierce, and Brown explored the interrelationship between multiple human cultures, animals, and land that surrounded them, they offered little analysis of the historic interaction between humans and wolves.

Jan DeBlieu and Christopher Camuto, two nature writers, contributed to the recent history of wolves in North Carolina with separate publications about red wolves. In *Meant to Be Wild: The Struggle to Save Endangered Species Through Captive Breeding*, DeBlieu explored the challenges of multiple reintroduction projects across the nation. She offered a brief narrative about the reintroduction of red wolves to eastern North Carolina's Alligator River National Wildlife Refuge in 1986 and the initial years of the project. She demonstrated that the program to save the red wolf was instigated by alarmed scientists in the 1960s, aided by concerned individuals, and supported by federal protection after 1973. DeBlieu, an environmental advocate, questioned the values, techniques, and challenges employed during the reintroduction of red wolves in a critical and humorous style. The recovery program physically protected red wolves in a captive breeding program and by law in the wild, but also needed to be designed so that the animal would not lose its 'wildness' in captivity and management. These goals all required intensive human intervention to save a species in danger of disappearing.¹²

After the challenges that DeBlieu discussed in Alligator River were overcome, the red wolf recovery program shifted to another site in 1991 with the release of a family of

¹² Jan DeBlieu, *Meant to Be Wild: The Struggle to Save Endangered Species Through Captive Breeding* (Golden, CO: Fulcrum Press, 1991).

adult red wolves in Cades Cove. Christopher Camuto's *Another Country: Journeying Toward the Cherokee Mountains* examined the recovery of the red wolf at the opposite end of North Carolina in the Great Smoky Mountains National Park. Like DeBlieu, Camuto experienced bouts of soul searching while he narrated the early years of the Park's contribution to the red wolf recovery. Both authors credited the federal biologists who worked tirelessly to support the wolves in their new habitats. Camuto questioned the merits and ramifications of the thoroughly human-directed management of an endangered species, while offering his interpretation of the history behind the recovery project. His narrative, like DeBlieu's, told the history and early story of the reintroduction. However, Camuto's story was published before the Park's reintroduction program was terminated in 1998. A final evaluation of the Red Wolf Recovery Project will have to wait for a fuller analysis as the program remains underway in eastern North Carolina.¹³

This study will not serve as a final analysis of wolf recovery, nor will it offer a comprehensive analysis of wildlife law in North Carolina. Rather, this study represents an interpretation of bounty and hunting legislation within a cultural context. North Carolina legislative history defined wolves as "vermin" and first instituted bounties for their scalps in 1715.¹⁴ The effort to eradicate wolves also coincided with the imposition of local taxes to pay for those bounties. Bounty legislation was periodically renewed until 1893, with more than a dozen amendments and repeals. Until at least 1894 western

¹³ Christopher Camuto, *Another Country: Journeying Toward the Cherokee Mountains* (New York: Henry Holt, 1997).

¹⁴ Walter Clark, ed., *The State Records of North Carolina*, Volumes XI-XXVI (Winston and Goldsboro: Printers for the State of North Carolina, 1895-1905), Volume XXIII: Page 71.

North Carolina counties continued to pay bounties.¹⁵ Despite their long-term presence, and the real impact of wolves on settled societies, southern environmental historians have relatively overlooked these animals.

William Powell's essay "Creatures of Carolina from Roanoke Island to Purgatory Mountain" chronicled the accounts of explorers and naturalists between the Europeans' first visits to Roanoke Island in 1584 through the end of the colonial era.¹⁶ Powell offered some analysis; however, the main thrust of the essay cataloged the abundance of wildlife in the state. The reactions of early visitors typically reflected Old World fears of wolves, as revealed in Barry Lopez's *Of Wolves and Men*, but they also revealed significant differences. Lopez, a nature writer, wrote a comprehensive survey of the history between humans and wolves, effectively painting a picture of 'the good wolf.' He used the European Middle Ages and North American Indian tribes of the West to contrast different legacies of human and animal interactions.¹⁷

A handful of accounts from North Carolina history have suggested that New World wolves behaved differently than Old World wolves. For example, when William Byrd, II surveyed the North Carolina and Virginia state line in 1728 he encountered wolves that he described as more timid in the presence of humans than he expected,

¹⁵ "Annual Statement," *Bryson City (North Carolina) Times*, 18 January 1895.

¹⁶ William Powell, "Creatures of Carolina from Roanoke Island to Purgatory Mountain," *North Carolina Historical Review* 50, no. 2 (April 1973): 155-168.

¹⁷ Barry Holstun Lopez, *Of Wolves and Men* (New York: Charles Scribner's Sons, 1978).

based upon his European experiences.¹⁸ In contrast, the Salzburger colonists of Georgia documented numerous encounters between 1734 and 1752. Their observations suggested more aggressive wolves, but a closer reading of their extensive journal entries indicated that other environmental and seasonal conditions might have influenced these interactions.¹⁹

Explorers and early settlers have been credited with identifying species that eventually became extirpated from the region, particularly the red wolf. First described by William Bartram in 1774, this animal disappeared from the southeast and was listed as endangered almost two hundred years later in 1973.²⁰ In the late 1970s the United States Fish and Wildlife Service developed a landmark recovery plan designed to reintroduce predators to North Carolina. The first reintroduction took place in Dare County at the Alligator River National Wildlife Refuge in 1987. The second, four years later, took place in the Great Smoky Mountains National Park.²¹ The previously bad predators, defined as serving no utility for much of human history, had assumed a more broad and useful ecological identity in the eyes of some modern people.

¹⁸ William Byrd, *Histories of the Dividing Line Betwixt Virginia and North Carolina*, eds. William K. Boyd and Percy G. Adams (New York: Dover Publications, 1967), 94.

¹⁹ George Fenwick Jones, Marie Hahn, and Renate Wilson, eds., *Detailed Reports on the Salzburger Emigrants who settled in America*, Edited by Samuel Urlsperger (Athens: University of Georgia Press, 17 volumes, 1968-93), Volume 3: Page 15; 4:204; 5:214; 15:130.

²⁰ William Bartram, *Travels though North and South Carolina, Georgia and East and West Florida*, ed. Gordon DeWolf (Savannah, GA: Beehive Press, 1973), 199.

²¹ United States Fish and Wildlife Service, *Red Wolf Recovery Plan* (Atlanta, GA: United States Fish and Wildlife Service, 1989; revised 1990).

Thomas R. Dunlap discussed this transformation and the history of wildlife policy in his book *Saving America's Wildlife: Ecology and the American Mind, 1850-1990*.²² He began his study of American wildlife in the final decades of the nineteenth century, when naturalists and eastern philanthropists sought to preserve America's frontier legacy. These early 'environmental activists' delineated between good and bad wildlife, and instituted measures to protect or eliminate un-domesticated animals. Good wildlife, such as the bison, received protection as they were reinterpreted as a symbol of the American Frontier. During the Gilded Age and early Progressive Era, urban dwellers felt 'soft,' over-civilized, and sought to protect icons that represented wildness and frontier masculinity. Retaining the primitive qualities of the frontier would contribute to a revitalized and powerful civilization in the opinion of early conservationists like Theodore Roosevelt. But this attention to saving wildlife only protected particular animals, and categorically defined predators as economic liabilities.

Dunlap revealed the connections between, and the affects of, the Progressive conservation movement, the development of ecological science from what Samuel P. Hays called the "gospel of efficiency," and an enlarged post-New Deal federal bureaucracy upon natural resource management.²³ Of significant importance was the federal government's subsidized and direct involvement in predator control. After exposing the effects of these relationships, Dunlap illustrated how American perceptions of bad animals transformed in step with the modern environmental movement, and

²² Thomas R. Dunlap, *Saving America's Wildlife: Ecology and the American Mind, 1850-1990* (Princeton, NJ: Princeton University Press, 1988).

²³ Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Cambridge, MA: Harvard University Press, 1959).

contributed to the contemporary reintroduction effort of previously bad animals like the red wolf.

Historian Lisa Mighetto attributed the transformation of human attitudes towards animals to nineteenth century nature writers and advocates of animal humanitarianism.²⁴ Mighetto argued that Charles Darwin's theory of evolution diminished the Biblically inspired separation of humans from the animal kingdom. While Darwin deflated the human ego, nature writers elevated animals when they applied human traits to wild creatures. Mighetto would agree with Thomas Dunlap that the science of ecology contributed to a new land ethic, but she also found that the historically unrecognized humanitarian movement contributed to the belief that animals understood pain. Humanitarians feared that if people continued to hunt, process, and consume animals, humans would become desensitized and uncivilized. As Dunlap and Mighetto revealed, animals assumed esthetic, moral, economic, ecologic, and ideological utility for humans.

Esthetically, wolves symbolized pristine and pastoral wilderness for a select few at the turn of the twentieth century. The animal served human utility from a moral or ethical perspective: If humans continued to kill wolves, civilization was doomed. "Mistreatment of animals...developed cruel natures" in those who perpetrated the violence and contributed to the demoralization of people.²⁵ This argument cast humans as savage and uncivilized. Wild wolves were respectable, honorable, and domestic in

²⁴ Lisa Mighetto, *Wild Animals and American Environmental Ethics* (Tucson: University of Arizona Press, 1991).

²⁵ *Ibid.*, 51.

their own ways. This line of reasoning represented the complete opposite of how American colonists interpreted the animal: wolves equaled the epitome of savagery.

From a twentieth century ecological utility, predators aided natural selection when they hunted weak and sick animals. But such imagination and reality also served the conservation cause of individuals such as Theodore Roosevelt who promoted the ideological utility of game animals. Hunting wild game and regression to primitive instincts contributed positively to white-male civilization in the eyes of Roosevelt. Hunting and rugged individualism cast men as providers for women, but also helped affluent cosmopolitan white men re-discover freedom. Confined to an increasingly urban and industrial life where satisfaction rested in consumption, Roosevelt's frontier-ism served as a safety valve for a discontented, emasculated elite.²⁶

This discourse about animal ethics, civilization and conservation influenced political and scientific management of natural resources at the turn of the twentieth century. Quantitative in spirit, the social sciences converged with humanitarian ethics to advocate a new land ethic that included animal protection based upon qualitative characteristics. Some defined the qualities of animals in human terms, or simply as having a right to co-exist with all other living beings. Other individuals accepted that any human definition of animals reflected an anthropocentric bias or utilitarian approach. In the opinion of the latter camp, animals cannot be defined and our attempt to do so only confirms our inability to define wilderness, civilization and ourselves.

²⁶ Gail Bederman, *Manliness & Civilization: A Cultural History of Gender and Race in the United States, 1880-1917* (Chicago, IL: University of Chicago Press, 1995), 178-184.

The relationship between humans and wolves remains complex. Humans continue to define wolves in terms of ecosystem health and anthropocentric terms. “Howling tours” are advertised to tourists at Alligator River National Wildlife Refuge in North Carolina. Some interpret a wolf pack’s social structure and hierarchy in human terms, including attention to wolves that mate for life, as though humans emulate wolves or vice versa. Our desire to identify with wolves or to fully understand them will never end. Wolves will never be human. Likewise our domestic dogs will never be human, despite an owner’s best efforts. Our attempt to humanize wolves is just as dangerous as our success of demonizing them because we continue to impose a human-centric view on an animal we know little about. Researchers have collected, and continue to amass, empirical and anecdotal data about wolves in different ecosystems around the world. However, one must be careful in defining wolves from one ecosystem by data culled from another.

My story is not specifically about wolves or humans, but more about the constant interplay between the two within a shared space. My title does suggest that the story is primarily about wolves, and the story is designed to explain why wolves disappeared, and then reappeared, in the presence of humans. The story is not designed to resemble a tragic narrative about environmental destruction due to greedy, capitalistic humans. The history of wolves and humans in North Carolina, while not a progressive tale of euphoric success despite the significant strides of the reintroduction program, is better

characterized as a cultural study. How did humans react to wolves? What did they write about wolves?²⁷

I began this work knowing, thanks to honest criticism from my colleagues, that a full evaluation of the ongoing reintroduction of red wolves in North Carolina would not be possible. However, my examination of the historic relationship that emerged between wolves and humans uncovered more than I expected. I chose to write about wolves, because like other historically visible mega-fauna, they were easier than other animals to write about. This story might actually be representative of other species, both those that faded from the landscape and those that did not. The same legislation that has worked against wolves worked in favor of other species, such as deer, perhaps mice, and presumably in the deeper ecological relationships between plants and microorganisms.

If environmental history is designed to reveal the complex interplay between the human and non-human spheres, or how ecology plays a role in this process, then tracking wolves could not be a better academic adventure. As I ponder the questions of “causality” in the history of wolves, I am bombarded.²⁸ What were the historical-ecological implications of wolf eradications? How were the cultural biases of Europe socially reproduced in colonial North Carolina? Were Angolan slaves enlisted to hunt predators skilled from the hunting of jackals in their country of origin? When did the Cherokee begin to really hunt wolves, turning against their tradition of respect for the revered species? In a cash poor environment, how did the counties raise the capital to

²⁷ For more on environmental history and narrative, see: William Cronon, “A Place for Stories: Nature, History, and Narrative,” *The Journal of American History* 78, no. 4 (March 1992): 1347-1376.

²⁸ For a discussion on environmental history as field on its 20th “birthday,” see: “A Roundtable: Environmental History,” *Journal of American History* 76, no. 4 (March 1990): 1087-1147.

pay mandated bounties, and what was the tax base? If humans were really afraid of wolves, what convinced 'wolf farmers' to crawl into dark wolf-dens? The questions have not stopped coming, nor have they all been successfully answered.

To answer my own inquiries, and to serve the reader's interest, my thesis will include the following four chapters. Chapter One, "*Not so large and fierce*": *European Wolves and Cherokee Wa''ya, 1585-1745*, examines the basis of human and wolf interactions in colonial North Carolina, including the roots of colonial perceptions of wolves and wild animals best exemplified through religious doctrine and fables. Here I argue that western North Carolina's Cherokee Indian cultural interactions with wolves differed from those of Euro-Americans because the Native Americans did not historically practice animal husbandry. But Euro-Americans and Cherokee Indians were not the only humans that hunted wolves: African slaves also participated in the hunt.

The second chapter, "*An Act to Encourage the Destroying of Vermin*": *Spending to Kill, 1745-1860*, illustrates the challenges colonial settlers and farmers faced in their competition for forest resources. Motivated in part by a legacy of legislation, North Carolinians such as the Moravians hunted wolves to protect their livestock. Much of these first two chapters deal with wild wolves and deer, and domestic dogs and livestock, revealing a complex relationship between non-human and human actors. This chapter will also analyze the laws enacted by the North Carolina legislature to eradicate wolves and protect domestic animals for economic purposes before the Civil War.

Chapter Three, "*The Better Protection of Sheep*" and *Wolf Farming: The Decline of the Wolf in Western North Carolina, 1870-1930*, will resume my narrative wolf history

in North Carolina with a focus on the western part of the state after the Civil War. By the turn of the twentieth century wolves were no longer a part of the North Carolina landscape. To promote sheep farming, agricultural lobbyists encouraged wolf hunting. Some independent farmers and mountaineers obliged, turning wolf hunting into wolf farming. In many instances farmers raided wolf dens on a seasonal basis to kill pups, and then let the adult wolves run free to breed for another year. As the result of wolf farming among other hunting methods, the eastern wolf was eventually hunted out of existence in the state by 1900.

Chapter Four, "*Top priority*": *Spending to Save the Red Wolf, 1965-2000* briefly highlights the premise behind saving wildlife and how these efforts to protect wildlife eventually led to national campaigns to protect all wolves. In this chapter I set in motion the story of how the red wolf was saved in Texas, and then began its journey as an endangered animal to North Carolina in the 1980s. Using Dunlap's *Saving America's Wildlife* to provide a framework for this change, I will bring the story of wolves in North Carolina around full-circle with a discussion of the early interest in red wolves. Trust in ecological science, a desire to save wilderness, the influence of public education through environmental activism, humanitarian concerns, and governmental direction all combined to make possible the reintroduction of wolves into North Carolina. The history of the Red Wolf Recovery Program was synthesized from government documents, journal and magazine articles that discussed the success, failure, and current status of the red wolf reintroduction program in North Carolina. I desire to demonstrate why and how this program is unique and groundbreaking in wildlife management and conservation.

Chapter One

“Not so large and fierce”: European Wolves and Cherokee Wa''ya , 1585-1745

English sailors landed a small boat on a sandy barrier island along North Carolina's Atlantic Coast in 1584. Sent by royalty and commanded by historically memorable officers, nameless mates and able-bodied seaman landed in a foreign world to lay the foundations for a new colony on Roanoke Island. Thomas Hariot, a noted naturalist of the era, accompanied North Carolina's early visitors and documented the flora and fauna encountered on one of the early expeditions. Hariot's *Briefe and True Report*, published in 1588, provided an account of his journey to the Colony of Roanoke for financial backers eager to invest in the new venture.

Hariot wrote of a wetland, or what the Algonquin Indians called a poquosin, an environment that teemed with human and non-human life.¹ This island and surrounding back-bays, previously worked by Indians, eventually became the domain of the English Crown. Among the noted wildlife, some strange and others recognizable, Hariot observed the feared European animal: “Wolfes” howled from the coastal stands of

¹ For more on the pocosin environments see: Jack Temple Kirby, *Poquosin: A Study of Rural Landscape & Society* (Chapel Hill: University of North Carolina Press, 1995); Curtis J. Richardson, ed., *Pocosin Wetlands: An Integrated Analysis of Coastal Plain Freshwater Bogs in North Carolina* (Stroudsburg, PA: Hutchinson Ross Publishing Company, 1981).

cypress and white cedar trees of eastern North Carolina.² Over the next four centuries wolves appeared often in the written work of European explorers, travelers, naturalists, clergy, agriculturalists, and public servants. These authors documented their experiences with animals they considered 'bad,' such as panthers, wolves, and "tygers." At the same time, the new arrivals welcomed the sight of food in the 'good' forms of deer and buffalo, as well as a multitude of fish and fowl. Adventurers such as Thomas Hariot looked at the strange new land and carried the old world definitions of animals ashore with the first European skiff.

Traditionally viewed as a useless and bad wild animal by Europeans, the wolf embodied the traits of a scavenger and a loafer that lived freely off the land or domestic livestock owned by humans. The wolf was a bad wild animal because it was feared as an object of horror, but mainly because of its associations with wilderness. If the wolf did not attack livestock, then the fabled animal allegedly attacked humans. According to Joyce E. Salisbury "the fear of being eaten largely shaped people's relationship with the wolf."³

To protect private economic interests a complex relationship developed between wolves, dogs, livestock, legislation and the trade in deerskins in colonial North Carolina. Animals such as wild deer and domesticated livestock were considered good according to early legislation for economic reasons. Colonial and state laws specifically protected

² David Beers Quinn, ed., *The Roanoke Voyages, 1584-1590*, Volume I ([London:] Hakluyt Society, 1955; reproduced by Nedeln, [The Principality of] Liechtenstein: Kraus Reprint Limited, 1967), 357. Hariot noted the presence of unidentifiable flora and fauna, however his list that detailed these organisms was lost; see note 5, page 356.

³ Joyce E. Salisbury, *The Beast Within: Animals in the Middle Ages* (New York: Routledge, Inc., 1994), 69-70.

sheep, hogs, cattle, and deer from wild predators and human hunters. Bounty laws targeted wild animals, such as wolves and crows, which represented economic liabilities for farmers or were perceived as personal threats.

Wolves were never considered good by any official means, but did serve multiple purposes. The early eighteenth-century physician John Brickell often noted what medicinal use plants and animals of North Carolina served for Indians. Wolf skins, he reported, made good drumheads and summer shoes. The animal's flesh, fat, and blood cured "all kinds of *Aches, Palsies, Luxations, and Fractures*."⁴ Regardless of these beneficial uses of wolves, the legislative record continued to publicly demonize wolves. During the early years of bounty payments European and Indian hunters collected multiple payments on the same wolf scalp, prompting legislation that curbed the effort. But economics alone did not drive the persecution of wolves.

Pre-modern and early modern interpretations of nature, wilderness and civilization significantly influenced Thomas Hariot and his fellow American-colonial perceptions of wolves. These early Christian European interpretations of nature varied greatly and often appeared as contradictions to one another according to intellectual historian Roderick Nash, medieval historian Joyce E. Salisbury and eco-theologian Susan Power Bratton.⁵ These writers explained that nature has always been used to translate moral or spiritual messages in reference to God. More importantly, the authors also

⁴ John Brickell, *The Natural History of North Carolina*, ed. Carol Urness (New York: Johnson Reprint Corporation, 1969), 120-121.

⁵ Roderick Nash, *Wilderness and the American Mind*, 3rd ed. (New Haven: Yale University Press, 1982); Salisbury, *The Beast Within*; Susan Power Bratton, "Oaks, wolves and love: Celtic Monks and Northern Forests," *Journal of Forest History* 33 (January 1989): 4-20.

illustrated who benefited from these ideas and who translated them for the masses. In the pre-modern and early modern eras these messages might signify good or ill will toward nature as Nash demonstrated in the Biblical tradition.

Nash defined wilderness as a human construct, but also as an idea that could not avoid contradiction. Nash discussed the controversial role of Genesis 1:28 in formulating human perception of the natural world. This Biblical directive established human domination of the non-human world, and clearly separated humans from the animal realm. Nash also analyzed the story of the mythic Eden, a utopian place where survival was possible with minimal labor, as a driving force behind human conquest of nature. While the Judeo-Christian perspective contributed to the perceived hierarchy in the animal world, it also added a favorable dimension to wilderness. Nash explained that wilderness also represented a place where pilgrims might go to cleanse their thoughts. The Israelites that traveled the deserts of the Sinai Peninsula represented pilgrims in search of purity so as to deliver themselves before God in a pure state. The desert was not only a place of waste, but also a storehouse of clarity.⁶

Where the Biblical definition of wilderness might have included the terms desert or waste, the medieval definition was more reflective of a European landscape that was dark, forested, or uninhabitable. Pagan traditions and medieval folklore contributed to this image with the addition of characters like semi-wild hairy men, trolls or half-human-half-animal characters that were dangerous and repulsive. Wild beasts ran unencumbered and civilization was absent in the European wilderness. Nash argued that in this period

⁶ Nash, *Wilderness and the American Mind*, 13-18.

good Christians were supposed to focus upon personal salvation and “the attainment of heavenly beatitudes.” This left little time to rationalize or contemplate the beauty of natural treasures, or the relationship between humans and animals.⁷

One must be careful in accepting the Biblical definitions of nature according to Joyce E. Salisbury and Susan Power Bratton. All too often historical discourse of nature and wilderness has relied upon Genesis 1:28 and St. Francis of Assisi to define contrasting Christian attitudes toward the natural world. Salisbury examined what dominion over animals and Earth really meant to early Christians. Did the early Christian fathers seek to create a hierarchy or simply separate humans from animals? In a synthesized discussion, Salisbury argued that the Christian shift toward “dominion” was in part a response to earlier Roman and Greek paganism. The Christian separation aimed at realigning the human spirit with God, and away from polytheistic paganism.⁸

Susan Power Bratton used hagiographies – biographies of saints or revered persons – to introduce new sources to the “eclectic scholarship and lack of interest in primary sources [that has] given the false impression that early Christian appreciation of wild nature was isolated and strongly suppressed throughout the church.” Bratton discussed the potential pitfalls of the hagiographies that spanned the seventh to twelfth centuries: the people and events detailed in the documents may never have existed or occurred. However, the documents revealed attitudes and events that could have been

⁷ Ibid., 2, 8-12, 19.

⁸ Salisbury, *The Beast Within*, 4.

contemporary to the saint in question.⁹

Bratton continued on the intellectual themes that Nash discussed, but expanded the conversation and demonstrated that St. Francis was himself capable of contradictions. St. Francis was “the ultimate expression of traditions that had been growing and interweaving for centuries.” Focused on the Irish Celtic church, Bratton exposed how the traditions of these Irish monks represented a bridge between the pre-modern desert fathers and the Franciscan monks. Bratton argued that the Celtic monks best exemplified the oldest model of conservation in Christian theology. She contended that the Celts displayed a clear affection for nature and protected animals and plants. The rural Celtic monks came in daily contact with ‘the wilds.’ Living among the trees and in the forest, the monks devoted attention to animals of all shapes, sizes and habitats, from worms to wolves. Of particular interest, Bratton claimed that the rural Celtic monks only described wolf depredation upon livestock as opposed to attacks upon humans. Their experiences were passed onto and influenced future urban-dwelling Franciscans according to Bratton.¹⁰

Like the contradicting pre-modern interpretations of wilderness, the Middle Ages offered no clearer picture. The example of St. Francis of Assisi demonstrated these complexities. As a religious figure St. Francis brought the many perceptions of nature to mainstream consciousness. He assumed “that birds, wolves, and other wild creatures had

⁹ Bratton, “Oaks, wolves and love,” 4 and 7.

¹⁰ Ibid., 5, 19-20.

souls [and] preached to them as equals.”¹¹ The church no doubt considered him an anomaly, but St. Francis is an example of the persistent undercurrents that challenged the dominant paradigm. But here St. Francis’ contradiction was revealed: he and his contemporaries also detailed the horror of alleged wolf attacks upon humans. Given Bratton’s interpretations, the urban Franciscans appear to have either exaggerated the claims of evil wolves, or the wolves did become more aggressive given the increasing urban pressures on a formerly rural environment.¹²

New interpretations, like Salisbury and Bratton’s, revealed that the undercurrents of nature appreciation might have been more common than previously accepted. Regardless of precedence, colonial Americans accepted the dominant nature-subjugation narrative. The Puritans in colonial New England understood wilderness as a challenge to survival and a chaotic waste of natural resources. Wilderness was the antithesis of civilization and a symbol of Godlessness. According to Nash, Puritans interpreted that they were directed by God to make the land productive. Wilderness had to be eliminated in order to create an Euro-American environment for agricultural purposes. The land needed to be cleared of pests and predators, and any obstacle to survival or progress. Indians, while viewed as an obstacle, were sometimes enlisted to kill wolves.¹³ On other occasions seventeenth century Massachusetts militia companies “trained for skirmishes against Indians by mustering for wolf hunts” rather than carry out traditional drills and

¹¹ Nash, *Wilderness and the American Mind*, 19-20.

¹² Bratton, “Oaks, wolves and love,” 5, 19, 20.

¹³ William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York: Hill and Wang, 1983), 132.

exercises.¹⁴ The process of taming the wilderness was not designed for personal profit, as Nash discussed, but to break the backbone of a Godless wilderness.¹⁵

The Puritan mission was not specifically a personal crusade. As individuals they marched as a scattered army under the flag of civilization and God. The Puritans, future colonists, settlers and pioneers, witnessed what they considered a progressive transformation of wilderness into civilization. They considered it “a worthy cause in the interest of all mankind.” In a process that spanned from chaos to order, pioneers described the sacrifice they made for future generations, and were “ever conscious that greater issues hung in the balance.” This self-righteous mentality contributed to a sense of obligation for future generations to continue the process.¹⁶

During the early modern era, European philosophers such as Rene Descartes, defined nature in rational terms. Animals, Descartes declared, were machines that felt no pain or pleasure, were not guided by a higher power, and lacked intelligence.¹⁷ In a mindset devoid of moralistic guilt, humans continued to exploit animals. Viewed as personal property and valuable tools in agricultural applications, how animals lived remained irrelevant.¹⁸ Animals continued to be treated as they were in the Middle Ages. They were defined by behavior: animals did what they wanted, where they wanted.

¹⁴ James B. Trefethen, “Another Vanishing American,” *American Forests* 65, no. 1 (January 1959): 17, 48-49.

¹⁵ Nash, *Wilderness and the American Mind*, 28, 34-40.

¹⁶ *Ibid.*, 40.

¹⁷ Donald Worster, *Nature's Economy: A History of Ecological Ideas*, 2nd ed. (New York: Cambridge University Press, 1994), 39-40.

¹⁸ Barry Holstun Lopez, *Of Wolves and Men* (New York: Charles Scribner's Sons, 1978), 215.

Perceived as wild, violent, irrational, without goals or reason, animals did not have the capacity for reason, nor did they have souls. This lack of reason justified human dominion over animals in domestic form, as though animals were a waste to themselves and only human civilization could save primitive animals.¹⁹

Wolves epitomized wildness and while considered physically useless, European wolves became tools for social control. Europeans labeled evil creatures like wolves as demons. C.D.H. Clarke noted that the French Reverend Abbe Pourcher characterized the eighteenth century Beast of Gévaudan as a superhuman creature “sent to punish people for their sins.”²⁰ The Beast, if there was just one, was a giant wolf that allegedly killed numerous French villagers over the course of a three-year period. Reverend Pourcher used the wolf as a moral tool to punish his ‘flock’ for ignoring their spirituality, and possibly his direction. In an ethnocentric world, Pourcher was not interested in the possibility that human influence upon the landscape might have increased the activity of wolves and other animals.²¹

Despite the mechanization of the seventeenth century mind, complicated roles for the wolf revealed human ambivalence toward this creature. Wolves, at specific times, represented both a messenger of God and the Devil. Sent to punish the wicked, the wolf could represent God’s tool, as the Beast of Gévaudan was in Reverend Abbe Pourcher’s opinion. For the Devil, the wolf assumed the shape-shifting form of the werewolf who

¹⁹ Salisbury, *The Beast Within*, 5-6.

²⁰ C.D.H. Clarke, “The Beast of Gévaudan,” *Natural History* 80, no. 4 (April 1971): 44-51, 66-73, see 48. I will discuss this story in depth in Chapter Two.

²¹ Lopez, *Of Wolves and Men*, 218.

was sent to harass good men and women. Future contradictions developed when humans co-opted the surname Wolf, and avoided 'the wolf at the door' in the form of the tax collector. But wolves did not always deceive or destroy as in the Grimm's fairy tales. As noted by modern-naturalist Barry Lopez, the story of Romulus and Remus depended upon a maternal wolf that nurtured the brothers, and thus the future of the Roman Empire.²² The wolf at the door: antagonist or accomplice in the future of civilization?

Barry Lopez recognized a significant difference between the presentation of wolves in fables and fairy tales. The fables of Greek and Roman writers Aesop, Babrius, and Phaedrus allowed their readers to feel some sort of sympathy for wolves and their behavior. Lopez stated that "wolves are not hated in fables, the emotions elicited from the reader are not strong, [and] the wolf is not hell-driven and malicious." Fables were designed to impart a moral lesson about human behavior. It was no coincidence that in many fables the wolf merely represented "the political and social satire of an age" where "figures in history were taken for wolves."²³ Joyce Salisbury, like Lopez, argued that wolves "become a metaphor for nobility gone astray" in fables.²⁴ On the other hand, the fairy tale illustrated the wolf as a complex identity. In fairy tale and folktale, the wolf was "a much fuller character, capable of diabolical evil and also, occasionally, of warmth and unflinching devotion." The world of the fairy tale-wolf was best illustrated by "Little

²² Ibid., 248.

²³ Ibid., 251-252.

²⁴ Salisbury, *The Beast Within*, 30.

Red Riding Hood," first collected and published in France by Charles Perrault in *Histoires ou contes du temps passé*, in 1697.²⁵

This cultural baggage – religious, scientific and literary – that traveled with Thomas Hariot and the subsequent flood of European migrants appears in the journals and legislation of colonial North Carolina. Modern North Carolina historian William Powell illustrated how early explorers and visitors to the colony resembled conduits that transmitted what the wild new world looked like to those confined to the old civilized order. Visitors, such as sixteenth century naturalist and explorer Hariot, related the abundance of good game such as deer, rabbits, and ducks in their writings. Wildlife, free for the taking, represented a virtual superstore of sustenance far richer than the overused forests of Europe.²⁶

This new world appeared full of bounty and previously untapped. However, historians William Cronon and Timothy Silver dispelled the 'pristine myth,' a belief that Indians did not widely exploit natural resources or alter Atlantic-coastal landscapes.²⁷ There, the two historians described the extensive use of fire by Indians to open land for grazing and cultivation of corn. Further questioning the role that natives played in the North American landscape, historian Albert Cowdrey called corn one of the most

²⁵ Lopez, *Of Wolves and Men*, 250-251.

²⁶ William Powell, "Creatures of Carolina from Roanoke Island to Purgatory Mountain," *North Carolina Historical Review* 50, no. 2 (April 1973): 155-168.

²⁷ Cronon, *Changes in the Land*; Timothy Silver, *A New Face on the Countryside: Indians, Colonists and Slaves in the South Atlantic Forests, 1500-1800* (Cambridge: Cambridge University Press, 1990).

engineered and selectively bred plant species known to humankind.²⁸ That humans exploited their landscape for survival would be senseless to refute. Silver argued that Indians harbored no concept of waste or conservation while they worked the landscape.²⁹ Natives did hold spiritual relationships with their environment, but the Indians' attraction to Euro-American products influenced their future resource use patterns. Prior to European contact Indians relied upon a vast ecological safety net that provided all necessary food and shelter.³⁰ Natives depended upon changing seasons to procure foodstuffs, moved as necessary to find such resources, and avoided economic specialization until they entered into business with Euro-Americans.

Beginning as early as 1600, southeastern Indians and colonists worked in concert to harvest raw materials, such as deer hides, in great quantities to gain access to Euro-American material products.³¹ Eventually European diseases, which traveled across the land in successive waves of settlement with European products, killed untold numbers of Indians. Euro-Americans moved into the open spaces previously created by natives, and raised European cattle and cultivated North American corn. Indians and colonists agreed upon a combined use for good animals like the deer, but the European arrivals demonstrated ambivalent opinions of animals they considered a nuisance.

²⁸ Albert E. Cowdrey, *This Land, This South: An Environmental History*, rev. ed. (Lexington, KY: University Press of Kentucky, 1996), 14.

²⁹ Silver, *A New Face on the Countryside*, 66.

³⁰ Cronon, *Changes in the Land*, 37; Andrew C. Isenberg, *The Destruction of the Bison: An Environmental History, 1750-1920* (Cambridge: Cambridge University Press, 2000); 39.

³¹ Silver, *A New Face on the Countryside*, 42 and 103; Donald Edward Davis, *Where There Are Mountains: An Environmental History of the Southern Appalachians* (Athens: University of Georgia Press, 2000), 39-40, 59-69.

Missionary William Hilton's attention did not lapse as he recalled "several Wolfes howling in the woods" during a trip to Cape Fear. He also noted the spot where he claimed the wolves had "torn a Deer in pieces."³² Another missionary to the Albemarle region in 1691 continued on the feared and much repeated notion of a 'howling wilderness' when he declared that wolves would "roar about the houses."³³ These two episodes tell a story of settlers who feared not only the sounds of the dark forest, but also the savagery of a bad beast that tore helpless good animals apart. Future arguments in favor of wolf extermination often included the need to protect helpless and innocent animals like deer from destruction by wild beasts. During the colonial era Eurocentric perception of the wolf as a scavenger persisted when Christopher Gale wrote on November 2, 1711 that wolves picked at and ate human corpses before they could be buried after the Tuscarora Indian War.³⁴ No moral argument could save an animal that ate humans. Throughout the eighteenth century the wolf continued to fit the role of scavenger and fierce predator among stocks of domestic animals.

To control wolf populations, the North Carolina colonial legislature formally confronted wolves in 1715 and passed *An Act to Encourage the Destroying of Vermin*.³⁵ This act represented the first official legal sanction for residents to remove wolves, panthers and wild cats from the colony's environs, and then receive a bounty for the

³² William Hilton, "A Relation of A Discovery, by William Hilton, 1664," in *Narratives of Early Carolina, 1650-1708*, ed. Alexander Salley, Jr. (New York: Barnes and Noble, 1953), 47.

³³ Powell, "Creatures of Carolina from Roanoke Island to Purgatory Mountain," 164.

³⁴ William Saunders, ed., *The Colonial Records of North Carolina*, Volumes I-X (Raleigh: Printers for the State of North Carolina, 1886-1890), Volume I: Page 827.

³⁵ Walter Clark, ed., *The State Records of North Carolina*, Volumes XI-XXVI (Winston and Goldsboro: Printers for the State of North Carolina, 1895-1905), Volume XXIII: Page 71.

animal's scalp. A legislative precedent for North Carolina, bounty laws were not unknown to other English colonies. Similar legislation was enacted in Massachusetts, Pennsylvania, and Virginia beginning in 1630.³⁶ Like these other colonies North Carolina adopted similar language, and did not target wolves because they threatened the lives of humans. Instead, the predators were considered "prejudicial to the Inhabitants of this Government" because they destroyed "Cattle, Hoggs, & Sheep."³⁷ The bounty for the predators was on a sliding scale, and the hunter received between five and ten shillings from the "Publick Treasury" as directed by the act. The payout was determined by what method the hunter employed, such as by shooting, trapping, or hunting the wolf with a dog. As wild animals, the wolves belonged to nobody, but once trapped and killed the wolves became private property.³⁸

The 1715 bounty act was repealed seven years after its passage.³⁹ Historian Stuart Marks suggested that a landowning class manipulated legislation to control wildlife, but bounty hunters employed their own methods to bleed public treasuries of bounty payments. Marks stated that bounty hunters often made claims on predator kills in one parish, collected payment, and "recycled one corpse through repeated tenders."⁴⁰ While

³⁶ Rick McIntyre, *War Against the Wolf: America's Campaign to Exterminate the Wolf* (Stillwater, MN: Voyageur Press, 1995), 29-37; Valerie M. Fogelman, "American Attitudes Towards Wolves: A History of Misperception," *Environmental Review* 13, Issue 1 (1989): 63-94.

³⁷ Clark, *The State Records of North Carolina*, Volume XXIII: Page 71.

³⁸ James A. Tober, *Who Owns the Wildlife?: The Political Economy of Conservation in Nineteenth-Century America* (Westport, CT: Greenwood Press, 1981), 24.

³⁹ Clark, *The State Records of North Carolina*, Volume XXV: Page 174.

⁴⁰ Stuart A. Marks, *Southern Hunting in Black and White: Nature, History, and Ritual in a Carolina Community* (Princeton, NJ: Princeton University Press, 1991), 30.

some residents cashed in on bounty payments, other travelers who encountered predators thought differently about wolves.

Contrary to their predecessors, naturalists John Lawson, Mark Catesby, William Byrd, II, and John Brickell recognized something different about the wolves they encountered in North Carolina. John Lawson began his travels from Charleston, South Carolina to the interior of North Carolina on December 28, 1700, and eventually reached the Hillsboro, North Carolina region. Lawson returned to the North Carolina coast via the Pamlico River after seven weeks of cross-county travel.⁴¹

Upon reaching England in 1709, Lawson wrote about American wolves as though they were timid and shy, but also curious in humans' activity. Non-aggressive wolves visited Lawson's party at least once, but Lawson also observed: "we like-wise heard several Wolves howling in the Woods, and saw where they had torn a Deer in Pieces."⁴² The early adventurer claimed that the natives did not keep dogs prior to European arrival, and stated that the Indians were poor masters despite the Indians' aptitude for domesticating the "Dog of the Woods."⁴³ Lawson described the Carolina wolf as a pack hunting animal, but also one that relied upon the swamps for sustenance when necessary. Honest and in step with his contemporary observers, Lawson noted that the wolves, when wild were "neither so large, nor fierce, as the *European* Wolf. They are not Man-

⁴¹ John Lawson, *Lawson's History of North Carolina*, ed. Francis Latham Harriss (Richmond, VA: Garrett and Massie, 1952), ix-x. Charleston, South Carolina was known as Charles Town until 1783; I will use Charleston throughout for continuity.

⁴² *Ibid.*, 22, 48, and 67.

⁴³ *Ibid.*, 122-123.

slayers.”⁴⁴ Naturalist Mark Catesby suggested something only slightly different during his North Carolina travels between 1722 and 1725. He claimed that “in very severe weather” wolves were known to show less fear of humans.⁴⁵ Lawson and Catesby were not alone in their observations of North Carolina wolves.

Outside of Edenton in eastern North Carolina, William Byrd led a party of surveyors along the contested Virginia and North Carolina boundary in 1728. Echoing Lawson almost twenty years later, Byrd recorded multiple observations in a single journal entry. He stated that “the first of these wild beasts is not so large and fierce as they are in other countries more Northerly.” Assuming that he did not plagiarize Lawson, Byrd offered another opinion of the wolves that was not commonly accepted amongst his European counterparts. Human fear of wolves centered on the premise that wolves attacked and devoured humans. Fairy tales such as “Little Red Riding Hood” painted the devious wolf as a creature to avoid or kill. In contrast, Byrd found the wolves to “not attack a Man in the keenest of his hunger, but run away from him, as from an Animal more mischievous than himself.”⁴⁶

Byrd further expressed reservations about the big, bad wolf when he described foxes as much “bolder” and more likely to “assault any one that would balk them of their prey.” Byrd critiqued local settlers who took “the trouble to dig an abundance of Wolf-Pits, so deep and perpendicular, that when a wolf is once tempted into them, he can no

⁴⁴ Ibid., 122. Lawson’s emphasis.

⁴⁵ Mark Catesby, *Catesby’s Birds of Colonial America*, ed. Alan Feduccia (Chapel Hill: The University of Chapel Hill Press, 1985), 157.

⁴⁶ William Byrd, *Histories of the Dividing Line Betwixt Virginia and North Carolina*, eds. William K. Boyd and Percy G. Adams (New York: Dover Publications, 1967), 94.

more scramble out again, than a husband who had taken the leap can scramble out of marriage.” Up to ten feet deep and with overhanging walls to keep the wolves from jumping out, wolf-pits were covered with branches, then baited to lure wolves that fell through the false ground. These events suggested that Lawson and Byrd’s independent impressions of North American wolves represented a clear difference in comparison to the European species they were familiar with.⁴⁷

John Brickell, like John Lawson, called the wolf the “Dog of the Woods,” in part because he did plagiarize Lawson. Regardless of Brickell’s research methods, he added to Lawson’s observations and evidence of the complicated relationship between humans and wolves. Brickell wrote in 1737 that the wolves of his region did not attack humans or horses.⁴⁸ Wolves did “follow the *Indians* in great droves through the Woods.” The *Indians* apparently only killed “the Deer and other Beasts for their Skins and generally” left the carcass behind for wolves to feed on. Brickell, who lived for many years in Edenton, North Carolina, mentioned that a reward had been previously posted in his Province “which made the *Indians* so active, that they brought in such vast quantities of [wolf] Heads, that in a short time it became too burthensome to the Country, so that it is now laid quite aside, and the *Indians* will not kill” the wolves.⁴⁹ The *Indians* were likely drawn into the Euro-American colonial economy prior to this and perhaps found bounty hunting an easy and rewarding task. The eastern North Carolina *Indians*, analyzed through Brickell’s eyes, do not appear to have revered the wolf as other Native American

⁴⁷ Ibid.

⁴⁸ Brickell, *The Natural History of North Carolina*, 119-121.

⁴⁹ Ibid., 120. Brickell’s emphasis.

tribes have. Instead the Indians took advantage of the 1715 *Act to Encourage the Destroying of Vermin* that awarded a five to ten shilling bounty on wolves and other predators in an effort to protect livestock.⁵⁰

Lawson, Catesby, and Brickell included multiple illustrations of North Carolina's colonial animals in their writings. Lawson did not include an image of wolves in his single illustration of "The Beasts of Carolina," and no pictures of wolves appeared in Catesby's work.⁵¹ None of Brickell's four illustration plates, which included a total of fifty-five animals, depicted an image of a wolf.⁵² This is peculiar given the repeated reference to wolves and other beasts in their works and future records. Brickell revealed that panthers, tigers, and wolves "are not very plenty (except the *Wolves*) near the Settlements, the Planters continually destroying them as they hunt and travel in the Woods, and in process of time will be lessened as this County begins to be better inhabited."⁵³ It could be argued that since Brickell's *Natural History of North Carolina* was considered a colonial-promotional piece, any image of wolves might not have been a good advertisement.⁵⁴ This argument, however, fell short with the reality that Brickell depicted snapping alligators, slithering snakes, sharks, panthers, tigers, and wild cats in his plates.

⁵⁰ Clark, *The State Records of North Carolina*, Volume XXIII: Page 71.

⁵¹ Lawson, *Lawson's History of North Carolina*, see illustration following page 132.

⁵² Brickell, *The Natural History of North Carolina*, see illustrations following pages 106, 134, 170, 123.

⁵³ Brickell, *The Natural History of North Carolina*, 265.

⁵⁴ *Ibid.*, viii.

Brickell also discussed the methods, other than bounty hunting, used to control wolf populations. Planters in the regions of North Carolina that he visited dug baited-wolf pits like those described by William Byrd along the North Carolina and Virginia dividing line.⁵⁵ However, the Planters' personal dogs were often drawn into the pits by the baits so the method was abandoned. Brickell observed that the wolves were "small, many being no bigger than middling Dogs," a fact Lawson overlooked. Due to their size, the predators "seldom or never attack or kill either Foles or Calves, but are very destructive to Sheep, if [sheep] are not carefully put up in their Penfolds at Night."⁵⁶ When discussing the wolves "prodigious" breeding ability, Brickell stated that the wolves of his region began to disappear without reason. "It is the Opinion of the most judicious Hunters, that if [wolves] did not die for Hunger, or some secret unknown way, which they have been destroying one another, they would be the most numerous Beasts in America."⁵⁷ The 1737 statement remains cryptic. Was Brickell stating that the animals were disappearing because of external factors, such as hunters? Or did his observation suggest that the wolves faced a natural epidemic: rabies? Perhaps this disease led the wolves to turn on one another.

Like Brickell and the other intrepid European explorers, the Cherokee Indians of western North Carolina developed unique relationships with good wild and domesticated animals, as well as bad predators and domesticated livestock. According to Donald Edward Davis' synthesis of colonial and historical livestock records, the Cherokee of

⁵⁵ Ibid., 120; Byrd, *Histories of the Dividing Line*, 94.

⁵⁶ Brickell, *The Natural History of North Carolina*, 120.

⁵⁷ Ibid., 120.

Georgia and Alabama had adopted free-range cattle grazing practices from the Spanish by the early 1700s.⁵⁸ Historian Tom Hatley noted that hogs might have been present in Cherokee society as early as 1750.⁵⁹ Hatley demonstrated that the Cherokee War (1759-1761) influenced Cherokee adoption of domestic stock, and Davis argued that the Cherokee did not rely extensively upon livestock for survival until after the American Revolution.⁶⁰ Because the Cherokee aided the British during the American Revolution, the Patriot forces punished the Native Americans in 1776 by destroying their crops and cattle. Regardless of when the Cherokee integrated livestock into their daily lives, community destruction after both military campaigns hastened the natives' dependence upon livestock in increasing numbers for survival.⁶¹ When the Cherokee adapted domesticated livestock, they faced a complicated relationship with other animals.

The Cherokee maintained their herds in different ways than Europeans.

According to Hatley, the task of tending to livestock fell upon women who traditionally worked in the agricultural sphere of Cherokee culture. Men continued to hunt, command war parties, and found the accumulation of horses a method to improve social status.⁶² In the first half of the eighteenth century the Cherokee kept livestock in fenced areas, a method completely opposite of Euro-American settlers. Colonial inhabitants allowed stock to range freely, and these animals often browsed Cherokee gardens and cultivated

⁵⁸ Davis, *Where There Are Mountains*, 74.

⁵⁹ Tom Hatley, *The Dividing Paths: Cherokees and South Carolinians Through the End of the Revolution* (New York: Oxford University Press, 1993), 161.

⁶⁰ Davis, *Where There Are Mountains*, 74.

⁶¹ *Ibid.*, 72-77.

⁶² Hatley, *The Dividing Paths*, 39 and 161.

fields to the objection of the Indians. In a sign of virtual conversion to Euro-American culture, the Indians of the late eighteenth century ranged their hogs and cattle in the forests and mountains as colonial settlers did.⁶³

While the Indians found use for hogs and horses, they lacked respect for the “white-man’s deer”: cattle. The Cherokee derided this domesticated animal and found consumption of such meat repulsive. To consume cattle products would mean to surrender to Euro-American “food ways and folkways.”⁶⁴ Indians believed that a person gained the characteristics of the animals they hunted and consumed. When Indians ate deer meat, they reasoned that the desired characteristics of swift movement and agility would transfer to the human hunter, according to James Adair. An eighteenth century British trader, Adair lived among numerous Indian tribes of the southeast including the Cherokee, Chickasaw, and Choctaw. These Indians found omnivorous animals like hogs that lived “on nasty food” as “unhallowed, and polluted food” that was unfit for human consumption.⁶⁵ In exploring the roles of good and bad domestic animals, Davis and Hatley did not address the Cherokee relationship with predators or how the Indians controlled depredations upon their livestock by wa’ya, the animal known as the wolf.

The thought that predators did not attack the free-range stock held by the Cherokee remains difficult to believe. However, prior to contact with Euro-Americans the Cherokee developed a different relationship with wolves. James Mooney lived

⁶³ Davis, *Where There Are Mountains*, 75-6.

⁶⁴ Hatley, *The Dividing Paths*, 162-3.

⁶⁵ Samuel Cole Williams, ed., *Adair's History of the American Indians* (New York: Promontory Press, 1930), 139.

among the Eastern Band of the Cherokee at different times between 1887 and 1890. As an employee of the Smithsonian's Bureau of American Ethnology and an anthropologic interpreter for the federal government, Mooney immersed himself in Cherokee culture. As he became fluent in the Cherokee language Mooney earned the trust of full-blooded Cherokee that had avoided federally mandated removal and what became known as the Trail of Tears in 1838. From his immersion in Cherokee culture Mooney collected and published *The Myths of the Cherokee* among other publications.⁶⁶ Mooney's interpretation and collection of stories illustrated the foundations of Cherokee culture and society as related to him.

Mooney is credited with providing an objective portrayal of Cherokee culture. However, the Cherokee tradition diminished subtly after significant Euro-American influence. Mooney's collections detailed Indian myths that included objects, such as guns, that arrived with Europeans. While material culture altered the Cherokee life-style, historian William Anderson has recently uncovered a continuity of references to wolves throughout the "Payne-Bucrick Papers."⁶⁷ Forty years prior to Mooney, John Howard Payne and Samuel Bucrick noted that after certain injuries or events, prayers would be directed to wolves. The papers also stated that if a traveler happened upon a fox or wolf, and the animal retreated or barked, such an action might foretell future events.

⁶⁶ James Mooney, *History, Myths, and Sacred Formulas of the Cherokees*, ed. George Ellison (Asheville, NC: Historical Images, 1992).

⁶⁷ A personal conversation with Dr. William Anderson, Professor of Cherokee History, Western Carolina University, Cullowhee, North Carolina helped formulate my ideas on this specific issue; 17 October 2002. Anderson is currently transcribing and editing the Payne-Bucrick Papers for the Newberry Library.

A significant number of the Mooney's Cherokee stories detailed the interactions of animals, including the interaction of human and wild animals. As Mooney stated, there is "no essential difference between men and animals" in the Cherokee tradition. Humans dominated animals in the physical world, but animals formulated a defense against abuse. Animals developed illnesses and diseases that they inflicted upon hunters if the proper atonements or prayers were not administered after hunters killed an animal.⁶⁸

Personal Indian names often reflected the individual's character in relation to a specific animal, an event in their life, tribe or clan. Mooney stated that the animals in the stories that he recorded were considered larger, stronger and more clever than those living in the present world.⁶⁹ When reading about Indians and animals it is important to remember that the relationship between human and animal was blurred. Two issues further complicated this in regards to wolves in the Cherokee tradition. First, one of the seven Cherokee tribes is the Wolf Clan. Secondly, Wolf Town is a village located within the Qualla Boundary. When reading about wa'ya or Wayah, such mention could be a reference to an animal, a human individual, a clan member, or a villager.⁷⁰

Many animals that became significant in Cherokee daily life did not play significant roles in Cherokee mythology. Mooney recorded no legends about horses, hogs, sheep, goats, mules or cats because these were European additions to the landscape.

⁶⁸ Mooney, *History, Myths, and Sacred Formulas of the Cherokees*, 250-52, 261.

⁶⁹ *Ibid.*, 262.

⁷⁰ Janet and David G. Campbell, "The Wolf Clan," *Journal of Cherokee Studies* 7, no. 2 (Fall 1982): 85-91; see 86.

The wolf however, appeared in more than one story. The third myth in Mooney's collection, "Kana'ti and Selu: The Origin of Game and Corn" explained the origin of wolves. Kana'ti enlisted the Wolf People to ambush two young troublemakers, but the plan went awry. The Wolf People encountered a deadly counter-ambush, and "only two or three got away, and from these have come all the wolves that are now in the world." The wolf eventually became Kana'ti's chief hunting partner.⁷¹

While the Cherokee did not record origin stories of Euro-American animals, the story of the wolf in Cherokee culture cannot be separated from that of the dog. According to Mooney, dogs were "put on the mountain and the wolf beside the fire." When the dog could no longer stand the cold of the approaching winter, the dog returned to the village and forced the wolf to retreat to the mountains. The hills suited the wolf "so well that he prospered and increased." After a while a wolf revisited the settlements, killed some animals, and was hunted down by the villagers. This story revealed that the Cherokee kept domestic livestock that required protection from predators, that the Cherokee killed a wolf in defense, and that a pack of wolves retaliated for the death of one wolf. However, the wolves "took such revenge that ever since the people have been afraid to hunt the wolf."⁷²

⁷¹ Mooney, *History, Myths, and Sacred Formulas of the Cherokees*, 242-249 and 265.

⁷² Ibid., 280. The convergence of canids in western, Indian, and African cultural history abounds. Mooney noted that one Cherokee story of dogs and wolves paralleled an Angolan story about dogs and jackals. See Mooney, 453, note 54; Heli Chatelain, ed., *Folk-Tales of Angola: Fifty Tales with Ki-Mbundu Text Literal English Translation Introduction, and Notes* (The American Folk-Lore Society, 1894; reprint New York: Negro Universities Press, 1969, page 213). The European tradition can look to an encounter between the dog and wolf in a fable by Aesop, and later by Babrius and Phaedrus. (Ben Edward Perry, ed., *Babrius and Phaedrus*. Cambridge: Harvard University Press, 1965, pages 276-269). In an expanded discussion Mooney voiced his opinion that versions of the Cherokee story of the "Tar Wolf" was widespread over Indian North America prior to European contact, and also that the African American "Tar

Wolves clearly played a very different role in the lives of Cherokee according to James Mooney. Wolves were associated with the origin of wild game and the domestic dog. The spirit of the wolves was also enlisted to provide special protective powers from frostbite. Wolves, due to their physical and spiritual power also contributed to the specialization of human labor and activity. Mooney related that only specific 'wolf killers' who had the "knowledge of the proper atonement rites" could kill wolves. These individuals were employed by those who "suffered from raids upon their fish traps or their personal" stock-animals. The Cherokee believed that if anyone other than such a hunter killed a wolf, the hunter's gun would not shoot straight unless "exorcised by a medicine man." After killing a wolf, a professional Cherokee wolf killer prayed in an effort to "lay the burden of blame upon the people of another settlement." Then the hunter began a purification ceremony to cleanse his gun. Mooney did not talk about wolf killers using bows or spears.⁷³

The Cherokee may have adopted a different outlook when wolves preyed upon livestock. Other regions of North Carolina may have experienced increased wolf encounters as natural prey disappeared under the sights of human hunters. During the colonial period, settlers hunted deer for money, food and fun, and in that order on an almost year round basis. Charleston, South Carolina and the Port of Savannah, Georgia became central to the colonial deer trade throughout the 1700s. [See Table 1] Historians Verner W. Crane and Converse D. Clowse presented a statistical analysis of the deer hide

Baby" story parallels an Angolan story (Mooney, 234, 271, 450; Chatelain, 185). Both tales follow similar themes of authority, cunning, and autonomy.

⁷³ Mooney, *History, Myths, and Sacred Formulas of the Cherokees*, 265-6.

exports from South Carolina to England. Between 1699 and 1705 Charleston exported a total of 317,000 deerskins. The deerskin trade remained “the single most valuable commercial activity” for the region.⁷⁴

Table 1 – Deerskin Exports from British North American Colonies:
Charleston, South Carolina and Savannah, Georgia, 1699-1772

YEAR ⁷⁵	CHARLESTON ⁷⁶	SAVANNAH ⁷⁷
1699-1704 (5-Yr. Mean)	51,000	
1705-1709	50,000	
1710-1714	59,000	
1715-1719	25,000	
1720-1724	51,000	
1725-1729	80,000	
1730-1734	84,000	
1735-1739	112,000	
1740-1744	125,000	
1745-1749	147,000	
1750-1754	134,000	
1755-1759	137,000	25,750
1760-1764	112,000	95,785
1765-1769	82,000	247,775
1770-1774	52,000	
1770-1772 (3-Yr. Mean)		256,390

Indians were vital in the deer hide trade. The natives, including the Creeks and Yamasee Indians knew where to find deer and were eager to acquire European products. Between 1700 and 1715, nearly a million skins, including deer and beaver, traveled from

⁷⁴ Converse W. Clowse, *Economic Beginnings in Colonial South Carolina, 1670-1730* (Columbia: University of South Carolina Press, 1971), 120, 162.

⁷⁵ The data for years 1699 through 1774 are based on five-year means. Only the data for years 1770-1772 are for less than a five-year period.

⁷⁶ Verner W. Crane, *The Southern Frontier, 1670-1732* (Ann Arbor: University of Michigan Press, 1959), 110-113; Clowse, *Economic Beginnings in Colonial South Carolina, 1670-1730*, Table III, 256-258; Converse W. Clowse, *Measuring Charleston's Overseas Commerce, 1717-1767: Statistics from the Port's Naval Lists* (Washington, DC: University Press of America, 1981), 54-56. Crane and Clowse compiled their data from the Charles Town naval lists, which are located in the British Public Record Office.

⁷⁷ Lewis Cecil Gray, *History of Agriculture in the Southern United States to 1860* (New York: Peter Smith, 1941), Volume I: Page 102, Table 2. Lewis' data are based on records compiled by William Brown, Comptroller and Searcher of His Majesty's Customs in the Port of Savannah.

colonial forests of America through Charleston to Great Britain.⁷⁸ Deerskin exports rose from 35,000 hides to almost 80,000 between 1720 and 1730. After 1730, historian Crane described the next two decades as the “golden” years for Charleston merchants, who also capitalized on rice and naval stores, such as pine tar and pitch.⁷⁹

Georgia merchants also participated in the deerskin trade. William Brown, comptroller for His Majesty’s Customs in the Port of Savannah between 1755 and 1772, recorded approximately 2.5 million pounds of deerskins, the equivalent of over one million deer, exported through Savannah.⁸⁰ According to Timothy Silver, between 1764 and 1773 over two million pounds, approximately half a million deer hides, were exported from Savannah to England.⁸¹ Back in the forests of North Carolina, not just deer were harvested to serve human use. The skins of bears, raccoons, deer, beavers, otters, panthers, wildcats, and wolves became “caps, shoes, gloves, muffs, and leggings...wolfskins made the best drumheads.”⁸² The highly versatile and utilitarian deer satisfied the needs for all of the above, plus food.

How does the trade in animal skin and the persecution of the wolf fit together? While colonists persecuted bad vermin and simultaneously thinned deer stocks, the first legislation of-its-kind in 1738 instituted a formal deer-hunting season. State records

⁷⁸ Davis, *Where There Are Mountains*, 61-69 and 39-40.

⁷⁹ Clowse, *Economic Beginnings in Colonial South Carolina*, Table III, 256-257; Crane, *The Southern Frontier*, 112.

⁸⁰ Davis, *Where There Are Mountains*, 64; Gray, *History of Agriculture*, Volume I: 102, Table 2.

⁸¹ Silver, *A New Face on the Countryside*, 93.

⁸² Robert D.W. Connor, *North Carolina: Rebuilding An Ancient Commonwealth*, Volume I (Chicago and New York: The American Historical Society, 1929), 34.

revealed that such legislation banned deer hunting between February 15 and July 15 unless the hunter was an authorized servant or slave. The fine for breaking the law and getting caught stood at a hefty £5.⁸³ Designed to control heavy deer hunting, the legislation also limited hunting for the purpose of collecting hides, but not meat. Such legislation sought to eliminate abandonment of carcasses in the woods that attracted predators.⁸⁴ Many of these predators became scavengers and easily survived upon the carrion of deer stripped of their hides, or turned to livestock when deer stocks eventually plummeted. Euro-Americans and Native Americans were not the only participants in the liquidation of forest resources. African-American slaves and servants also hunted wildlife.

Persistent legislation not only controlled what to hunt, but also who could participate, including African slaves. Acts passed as early as 1729 permitted slaves to hunt on their master's property or in the presence of a white chaperone.⁸⁵ However, only one of these acts specified that slaves could hunt predators. Other acts declared that whites or slaves hunting with fire at night be punished with lashes, fines, confiscation of any weapon in their possession, and during the American Revolution, might be conscripted into the Continental Army (for whites during the Revolution), or a combination of these.⁸⁶

⁸³ Clark, *The State Records of North Carolina*, Volume XXIII: Page 128.

⁸⁴ Cowdrey, *This Land, This South*, 49; Powell, "Creatures of Carolina from Roanoke Island to Purgatory Mountain," 160.

⁸⁵ Clark, *The State Records of North Carolina*, Volume XXIII: Page 112-114.

⁸⁶ *Ibid.*, Volume XXIII: Page 112; XXIV: 33, 162, 268, 503, and 595.

An Act Concerning Servants and Slaves (1741), thoroughly and extensively defined the rights of servants and slaves in the colony of North Carolina. Slaves were forbidden to own or carry a weapon with only one exception. Slave owners enjoyed the right to employ “any one Slave in each and every district Plantation” to hunt only “in the woods on their Master’s Lands with a Gun, to preserve” his or her Master’s stock, or to kill game for plantation dinner tables.⁸⁷ The law required the slave be registered for such work with the Chairman of the local court. Not only could masters elect a private game warden, but the wording of the colonial and state bounty acts also entitled slaves to collect payments. However, a slave’s master or owner was required to verify the story before the Magistrate in order to secure the formal Certificate and payment.⁸⁸

Slaves’ use of firearms remained tightly controlled in North Carolina for fear of insurrection, but some owners encouraged slaves to hunt for provisions. Such activity, tacitly or openly approved, lessened an owner’s burden of providing food and staples to his or her slaves.⁸⁹ Furthermore slaves found that access to firearms and ability to hunt on their own time enabled them to create their own slave-economy.⁹⁰ The legal participation of slaves in the elimination of predators signified that slaves either accomplished the task as just another task, or may have come to fear wolves for reasons

⁸⁷ Clark, *The State Records of North Carolina*, Volume XXIII: Page 201; Nicolas W. Proctor, *Bathed in Blood: Hunting and Mastery in the Old South* (Charlottesville: University Press of Virginia, 2002), 160.

⁸⁸ Clark, *The State Records of North Carolina*, Volume XXIII: Page 228.

⁸⁹ Marks, *Southern Hunting in Black and White*, 28.

⁹⁰ Proctor, *Bathed in Blood*, 126 and 153.

of personal safety or economic liability like their owners during the process of acculturation.

Hunting legislation, both advocating the destruction of vermin and the protection of wild and domestic stock, filled the colonial record books. Legislation does not imply compliance, enforcement, or an informed public. However, repetitive anti-predator legislation and hunting regulations suggest that all human residents of colonial North Carolina, wolves, deer and livestock continued to exhibit a tenuous relationship. Records from colonial settlements in the southeast and the legislative docket best illustrate this tension.

Chapter Two

"An Act to Encourage the Destroying of Vermin": Spending to Kill, 1745-1860

Stuart A. Marks' cultural history about hunting in North Carolina illustrated that the class relationship between planters and independent farmers produced peculiar wildlife legislation. Such legislation also laid the foundations for ecological transformations in colonial North Carolina. Marks argued that landowners and politicians controlled wildlife legislation between 1738 and 1810 through various means. They instituted hunting seasons, banned hunting at night or with fire, controlled access to private land, called for the eradication of predators, and made desertion of hide-stripped carcasses illegal. Landowners and politicians hoped that controlling access to good wildlife such as deer would preserve the species for their personal needs, but also could control independent farmers' access to the free bounty of the forests.¹

The concept of legal control of yeomen or self-sufficient planters' hunting rights originated in England, and was replicated in the American colonies. Marks outlined the multiple ends that wildlife regulation served. First, deer and other good wildlife stocks would not dwindle with regulation. Combined with trespass laws, public access to wildlife on private lands was curtailed. Secondly, when hunters eliminated predators,

¹ Stuart A. Marks, *Southern Hunting in Black and White* (Princeton, NJ: Princeton University Press, 1991), 31; Walter Clark, ed, *The State Records of North Carolina*, Volumes XI-XXVI (Winston and Goldsboro: Printers for the State of North Carolina, 1895-1905), Volume XXIII: Page 128 and 218-19; XXIV: 595-97.

this pest removal produced new grazing territory for economic use and taxable property. The author's third and final point illustrated the split between the planter and yeoman class. Marks found that legislators sought to control hunting in an effort to encourage independent settlers to develop their personal land, produce food for local communities, and enter a common market.

A colonial committee recognized the connection between skinned-carcasses that littered the forests and increased predator populations. On November 28, 1744 the committee declared, that "all single men and other strollers hunting, killing the Deer at all times leaving the carcasses in the woods bring down the vermin and increase them" in numbers.² The thinning of deer stocks at the hands of Euro-Americans and Indians alike increased wolf populations. With more wolves around, the predators looked for alternative sources of food in regions that were caught between American 'wilderness' and European 'civilization.' Within one year official hunting legislation emerged from the colonial legislature. Not only was deer hunting and the abandonment of carcasses controlled, but yeoman were required to produce "a Certificate" that proved they had corn in the ground before going on the hunt.³

Legislation to control deer and wolf populations was not unique to North Carolina, as the example of Georgia settlers demonstrated. The wolves that John Lawson, William Byrd, and John Brickell documented stood in sharp contrast to those observed by German immigrants who established colonial Georgia. Lutheran

² William Saunders, ed., *The Colonial Records of North Carolina*, Volumes I-X (Raleigh: Printers for the State of North Carolina, 1886-1890), Volume IV: Page 745.

³ John D. Cushing, ed, *Earliest Printed Laws of North Carolina, 1669-1751*, Volume I (Wilmington, DE: Michael Glazier, 1977), 189.

Salzburgers fled Catholic persecution and established the Protestant community of Ebenezer along the Savannah River in 1734. The distance between coastal Georgia and North Carolina was great, and the two colonies were in different stages of development. Furthermore, the wolves of the two regions may have been different. However, the difference between how a Virginia gentleman like William Byrd and the Lutheran minister Johann Martin Boltzius of Germany experienced wolves in America still demands explanation.

Boltzius and his successors compiled their journals in Georgia and shipped them to Germany for editing. In Europe, Samuel Urlsperger “collected, collated, edited, and published periodically” the records of the immigrants’ American colonial experience.⁴ According to George Fenwick Jones, editor of the *Detailed Reports on the Salzburger Emigrants*, Urlsperger dedicated the reports to the trustees of the English Society for Proclaiming Christian Knowledge. The trustees funded the travel and salaries of the ministers in Georgia who furthered the Protestant faith in the wilds of the new colony. This process of editorial leapfrog complicates the potential interpretation of the Salzburgers’ relationship to wolves in terms of content and literal translation. The reader must consider not only the modern German to English translation, but also the transition from colonial and European-continental perspectives. Regardless of that process, the *Detailed Reports on the Salzburger Emigrants* offered a fascinating account of human, animal and ecological relationships in a specific environment.

⁴ George Fenwick Jones, Marie Hahn, and Renate Wilson, eds., *Detailed Reports on the Salzburger Emigrants who Settled in America, Edited by Samuel Urlsperger*, Volumes 1-17 (Athens: University of Georgia Press, 1968-93), Volume 1: Page xi-xii. Hereafter cited as: Jones, *Detailed Reports on the Salzburger Emigrants*.

Between 1734 and 1752, Boltzius recorded approximately twenty incidents that involved wolves. Unlike Byrd's wolves, the Salzburger wolves showed no fear of humans. Philip Georg Friedrich von Reck traveled from Europe to visit the Salzburger immigrants in 1736. He recorded in his journal that "the wolves are so daring that they fear neither fire nor dogs and often wreak great damage among the cattle and even besiege our dwellings in Old Ebenezer," the central community.⁵ But wolves were not the only animals that confronted the settlers.

The Salzburger journals do not portray the immigrants as being directly involved in the deer hide trade, but this may have contributed to their woes. Historian Mart Stewart argued that the Salzburgers were not experienced hunters, and generally devoted their low energy reserves to agricultural efforts.⁶ Between 1735 and 1740 deer, among other pests such as birds, foxes, and squirrels, constantly pilfered the Germans' productive rice, sweet potato, pumpkin, corn, and bean fields.⁷ The wolf scare clearly did not diminish given the presence of natural prey, and such prey may have contributed to a wolf population boom.

The wolves carried off hogs and calves, invaded barns, preyed upon horses, and by December 17, 1751 the community eliminated all low hanging trees and brush from

⁵ Kristian Hvidt, ed., *Von Reck's Voyage: Drawings and Journal of Philip Georg Friedrich von Reck* (Savannah, GA: Beehive Press, 1980), 37.

⁶ Mart Stewart, 'What Nature Suffers to Groe': *Life, Labor, and Landscape on the Georgia Coast, 1680-1920* (Athens: University of Georgia Press, 1996), 77-81.

⁷ Jones, *Detailed Reports on the Salzburger Emigrants*, Volume 3: Page 118, 219; 7:162, 184, 190; 15:12, 84, 232.

the town perimeter to prevent hiding places for wolves, foxes and raccoons.⁸ Were the wolves truly that different from those encountered by William Byrd? Or were the wolves' predatory behaviors magnified by environmental conditions or editorial license? Did the wolves experience a local population explosion or a localized rabies outbreak that suppressed their general fear of humans? Historian Tim Silver has argued that even if deer "were no more plentiful than before, cattle and hogs attracted the packs to settled regions and cow pens, making the predators seem more numerous and fueling settlers' imaginations."⁹ However, the wolves may have been more aggressive for reasons that humans have not yet pieced together.

A majority of the documented Salzburger wolf and human encounters included mention of the month, weather and general climate at the time. Most of the entries concerning wolves occurred between early fall, which can arbitrarily be considered to begin with the month of August, and the next seasonal swing month of March. The colonists recorded weeks of heavy snow during the first quarter of 1736 and a drought in August 1752 that left the Savannah River nearly dry and "so small that a person [could] cross on foot."¹⁰

Some of these incidents and weather reports correspond with the reproductive cycle of wolves that generally mate and den between January and March, and have

⁸ Ibid., Volume 3: Page 15; 4:204; 5:214; 15:130.

⁹ Timothy Silver, *A New Face on the Countryside: Indians, Colonists and Slaves in the South Atlantic Forests, 1500-1800* (Cambridge: Cambridge University Press, 1990), 176.

¹⁰ Jones, *Detailed Reports on the Salzburger Emigrants*, Volume 3: Pages 55, 85, 93, 105; 15:232.

approximately a sixty-day gestation period.¹¹ Based on such environmental and biological factors, the Georgia wolves might have been particularly active in an effort to overcome harsh conditions. The wolves worked hard to survive during the winter, the early denning season, and the weaning period. They preyed upon easy targets such as the Salzburger fenced and free-ranging livestock when prey was difficult to secure during times of deep snow.

Samuel Urlsperger's editorial license may account for the exaggerated spring and fall encounters, and the lack of references during the summer months. Or the Salzburger encountered crop losses and persistent threat of starvation during the spring and summer because of wolves and drought.¹² Furthermore, the German minister may have overstated the claims of the Georgian colonists to advance a personal agenda, or encourage financial contributors to maintain support for the struggling community. Perhaps Urlsperger may have simply written about North American wolves from the only impression of wolves he had, a Eurocentric perspective. He never traveled to Georgia, and his thoughts about wolves reflected those common for centuries in Europe. Animosity for wolves, such as that demonstrated in Georgia, fueled colonial legislation even in North Carolina where the wolves described by William Byrd II were more timid. Persistent legislation not only controlled who could participate and when, but also what could be hunted.

A second North Carolina bounty act appeared in 1748 once the colonial legislature determined the best way to raise money to pay bounties at the parish level and

¹¹ L. David Mech, *The Wolf: The Ecology and Behavior of an Endangered Species* (Garden City, NJ: The American Museum of Natural History and the Natural History Press, 1970), 117 and 119.

¹² Jones, *Detailed Reports on the Salzburger Emigrants*, Volume 9: Page 42; 15:232.

to account for disbursements. Part IV of *An Act for destroying Vermin in this Province* required the vestry and churchwardens “to levy the said claims on several Taxables within each Parish” to fund the mandated bounties. This anti-predator legislation initiated a concerted effort to fill county coffers through parish taxation and fund the local destruction of bad animals. This act targeted panthers and wild cats, and offered a 10-shilling bounty upon wolves. To eliminate the transfer of dead wolves from one parish to the next, participating citizens were instructed to “produce the Head or Scalp, with both Ears, before any Magistrate, who [would] administer an Oath to such Person claiming” to have killed the animal, and then burn the animal’s remains.¹³

Colonial and state legislation that targeted predators and favored livestock paralleled the states’ westward population and economic growth. By the 1750s European pioneers in North Carolina settled the Piedmont, a region sandwiched between the foothills of the Appalachian Mountains to the west and the water-‘fall line’ of the area’s major rivers to the east. [See Figure 1] The legislation was designed to protect the interests of individual settlers like Johannes Plott, but also served atypical settlers like those from the Moravian Church. A German immigrant, Plott traveled from Philadelphia and overland to the Piedmont county Cabarrus in the 1750s (formerly part of Mecklenburg and Anson Counties). There he relied upon dogs, a special breed of hunting dogs that he brought from Germany, to protect his livestock from wolves.¹⁴

¹³ Clark, *The State Records of North Carolina*, Volume XXIII: Page 288.

¹⁴ Curtis Wooten, “Johannes Plott’s Famous Hunting Dogs,” in *Wildlife in North Carolina*, eds. Jim Dean and Lawrence S. Earley (Chapel Hill: University of North Carolina Press, 1987), 36-59.

Figure 1 – Physiographic Regions of the South Atlantic United States

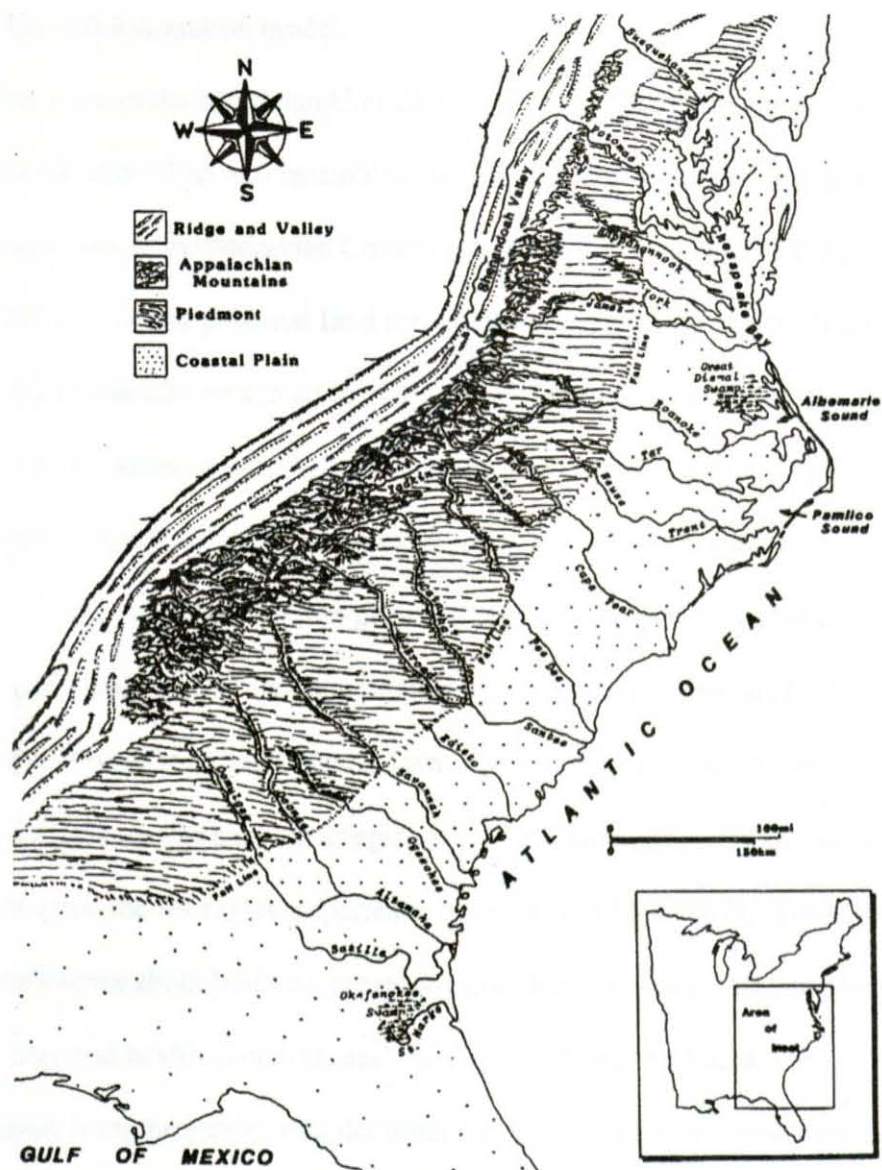


Image by W. Anderson, originally published in Timothy Silver's *A New Face on the Countryside* (1990).
Reprinted with the permission of Cambridge University Press.

Unlike Plott and other solitary settlers, the Moravians represented an example of a community-based migration model.

The story of the Moravian Church in North Carolina serves as an example of the state's growth after 1750, and resembled that of the Salzburger's in Georgia. The Pennsylvania seat of the Moravian Church sent Bishop August Gottlieb Spangenberg to North Carolina to scout potential land for a new Protestant settlement. John, Lord Carteret, Earl Granville presented the land offer to the Moravians, and Spangenberg selected 100,000 acres in what became the Winston-Salem, Forsyth County region. The multi-volume *Records of the Moravians in North Carolina* included highly detailed and "acute" accounts of daily life in the growing Moravian towns of Bethabara, Bethania, and Salem, North Carolina. While detailed, the *Records of the Moravians* were abridged and edited from German and their original format in an effort to conserve space. Entries in personal and private journals, congregation reports, town meetings and village board minutes detailed the Moravian experience between 1752 and 1879. The records offered continuous entries about building projects, agricultural planting, clearing land, visitors, weather, personal health concerns, and the region's flora and fauna.¹⁵

Apart from the entries that documented routine activities, many included settlers' interactions with wild and domestic animals. Despite their abridged format, the journals and diaries do include over thirty references to wolves, as well as a second topic that concerned a close relative of wolves: the domestic dog. These particular entries spanned

¹⁵ Adelaide L. Fries, Douglas LeTell Rights, and Minnie Smith, eds., *Records of the Moravians in North Carolina*, Volumes I-XI (Raleigh: State Printers, 1922-1970). Hereafter cited as: Fries, *Records of the Moravians*.

from 1752 when Bishop Spangenberg arrived in North Carolina, to a final incident, as recorded in two separate diaries, on May 3, 1806.¹⁶

Bishop Spangenberg spoke highly of the region's agricultural promise during his prospecting tour and noted, "The wolves here give us music every morning, from six corners at once, such music as I never have heard." Born in Germany in 1704, the Bishop was no stranger to wolves. Upon arrival in North Carolina nearly fifty years later he stated that the wolves "are not like the wolves of Germany, Poland, and Livonia, but are afraid of men, and do not usually approach them." This impression of wolves mirrored that of William Byrd's observation, twenty-five years earlier. Rather than expound upon the immoral, primitive condition of wild wolves or threats to personal security, he suggested in 1752 that a few settlers "skilled in hunting would be of benefit not only here but in other tracts, partly to kill the wolves and panthers, partly to supply the Brethren with game." Bishop Spangenberg, thinking like a capitalist, recognized the potential damage wolves and other predators might inflict upon the economic returns of his Brethren's livestock.¹⁷

The Bishop realized that the settlers also required a "trustworthy forester and hunter, for the wolves and bears must be exterminated if cattle raising is to succeed."¹⁸ One predator-control individual could collect bounties in accordance with the 1748 North

¹⁶ Ibid., Volume I: Page 51; VI:2849 and 2878.

¹⁷ Ibid., Volume I: Page 51.

¹⁸ Ibid., Volume I: Page 60.

Carolina *Act Destroying Vermin in this Province* to supplement the Moravian's income.¹⁹ However detailed in some areas, the *Records of the Moravians* revealed gaps in regard to wolves. Despite continued references to wolves and depredation upon livestock by bears, the Moravians did not record their first wolf kill until February 1755, a year-and-a-half after their arrival in North Carolina.²⁰ They had dug a wolf-pit a mile away in 1754 that earned them a single wolf. Why did it take so long to capture a wolf and collect a bounty? Why did the colonial legislation continue to institute bounty legislation? Given the mundane tasks devoted to everyday survival, the Moravians were too busy to seek or hunt the elusive animal that greeted them upon arrival in their new home with howls of welcome.²¹ Wolves did not make their immediate presence known in Moravian communities until the region resembled that of the Salzburgers: a landscape criss-crossed with fences, frame structures, and rows of crops. Perhaps the wolves (unlike the bears) had not yet discovered the Moravians livestock given the availability of deer in the first decade of settlement.

Between 1764 and 1773 the Moravians from Bethabara and Bethania sent multiple wagons loaded with animal skins to points south. The most common item, and "chief product of this country" in 1773 included undressed and dressed deerskins.²² In 1764 the Moravians shipped 6220 pounds to Charleston, followed by nearly 10,500

¹⁹ Clark, *The State Records of North Carolina*, Volume XXIII: Page 288.

²⁰ Fries, *Records of the Moravians*, Volume I: Page 79, 81, 90, 123, and 124.

²¹ *Ibid.*, Volume I: Page 79.

²² *Ibid.*, Volume II: 762.

pounds in 1765.²³ The *Records of the Moravians* report that the Moravians not only hunted deer, but also served as intermediaries in the hide trade. In February 1765 two Virginia hunters traded 1600 pounds of fur and skins for £80. That month two Moravians traded 80 pounds of hides for goods at the same trading post “where many people come to the store with skins for sale.”²⁴ The following year a writer noted that the community traders had received decent prices for their hides in 1766. An undressed hide sold for 8 sh 9 d, while a dressed skin fetched a whopping 15 shillings. Again in 1768 the Moravians sent deerskins toward Charleston, some 7400 pounds in two trips.²⁵ Local villagers killed two wolves in 1765, presumably because the predators became a nuisance as deer stocks fell and livestock became more readily available.²⁶

The Moravians, like other North Carolina residents, allowed their livestock to freely graze in the woods.²⁷ Agriculturalists constructed fences around kitchen gardens and crops to keep livestock out, rather than build fences around pastureland to keep animals in. Pigs, in particular, roamed the forests to feast upon free feed: acorns and chestnuts.²⁸ The Moravians realized their economic attempt at hog farming would fail because “it is too expensive to feed them at home, and to let them run wild in the woods

²³ Ibid., Volume I: 285, 290-91, 300-1, 307.

²⁴ Ibid., Volume I: 300, 307.

²⁵ Ibid., Volume I: 373.

²⁶ Ibid., Volume I: 300.

²⁷ Albert E. Cowdrey, *This Land, This South*, rev. ed. (Lexington: University Press of Kentucky, 1996), 49.

²⁸ Donald Edward Davis, *Where There Are Mountains: An Environmental History of the Southern Appalachians* (Athens: University of Georgia Press, 2000), 76.

and profit by them requires conditions that do not exist here. They have too many enemies, wild-cats, and foxes, and wolves when they are small, and bears when they are older.”²⁹ The concerns and fears expressed by these farmers did not originate in America, nor would they disappear with the end of the colonial era.

Settlers like the Moravians replicated many things European in the new world. Place names, plants, animals, and diseases accompanied colonists from the old world. Cultural ideas, myths, legends, stories, and religious convictions, likewise, accompanied the physical baggage. If adventurous souls like Spangenberg, Lawson, Byrd, and Brickell recorded observations of timid and shy American wolves, why did colonists continue to fear wolves? A story from eighteenth century Europe offers a clue. While the Moravians and other frontier pioneers thinned deer stocks, allowed livestock to range freely, and hunted wolves, rural French villages faced similar challenges to their survival in a civilized rural environment. If the wolves in America were unique and harmless to people, the tales of dangerous European wolves promoted a radically different wolf. These European situations also introduced another canid to the story: the domestic dog.

C.H.D. Clarke’s narrative about the French “Beast of Gévaudan,” told a story of how a handful of wolves preyed upon humans between the years 1764 and 1767.³⁰ A questionable story from the start, Clarke summarized French secondary sources based upon parish records from the provinces involved in the event. Clarke recounted the three-year government sponsored program to hunt down the wolf-like animals

²⁹ Fries, *Records of the Moravians*, Volume I: Page 139.

³⁰ C.D.H. Clarke, “The Beast of Gévaudan,” *Natural History* 80, no. 4 (April 1971): 44-51, 66-73.

responsible for the attacks. Hundreds of wolves may have been killed in a drive to find the culprits, or “The Beast” if there was just one. While the animals killed likely included rabid dogs and rabid wolves, the two animals slain as the Beast did not exhibit signs of rabies, but did show signs of interbreeding with dogs. These two animals were huge compared to average wolves and exhibited abnormal coloring.³¹ Large “mastiff-like dogs” were known to run free to protect livestock, and often interbred with wolves to produce large canids according to biologist R.D. Lawrence.³² Clarke noted a virtual explosion of rabid dog and wolf-like canids within the surrounding countryside that tormented villagers. Ultimately, the locals responded with sanctioned vengeance upon all wolves. The story of rabid dogs and the legal endorsement to destroy vermin-like wolves in France repeated itself in North Carolina, as illustrated by the records of the Protestant Moravians.

The combination of a decline in North Carolina deer stocks, a growing deer hide trade, and the increased predator population put free-range livestock in danger. In concert, the Moravians recorded that bad and “mad dogs” also caused trouble among livestock and fellow villagers. *Canis familiars*, or the domestic dog, troubled Moravian settlements. On June 7, 1775 a Salem diary noted that Brethren Stockburge “shall be spoken with concerning his dog, which had not only scattered the cattle, but has attacked people.”³³ Between 1775 and 1847 the Moravians noted over twenty accounts of mad

³¹ Ibid., 69.

³² R.D. Lawrence, *The Trail of the Wolf* (Emmaus, PA: Rodale Press, 1993), 128.

³³ Fries, *Records of the Moravians*, Volume II: Page 897.

dogs. The dogs chased cattle, bit hogs, and attacked people.³⁴ It is possible that some wolves, perhaps older wolves, adapted to livestock depredation after observing the behavior of these dogs. 'Problem' wolves attacked livestock, but all wolves paid for such an action.

Residents continued to complain about the number of dogs in their towns and incidents of bad dogs attacking humans and other animals. The Salem Board, in 1786, discussed their understanding that "cats and dogs are kept secretly...If there are among us people who will so injure their neighbors, it is much to be wished that they may be discovered."³⁵ Salem villagers went so far as to condemn dogs for running cows and sheep: "This is unprofitable, and bad for the cattle, especially the milch cows and it must stop."³⁶ Ultimately residents remained vigilant in the face of mad dogs, kept an eye on the ownerless dogs that ran about, and would "shoot them if anything looks doubtful."³⁷

Did humans confuse wolves and wild dogs? Could the Moravians be sure of what was preying upon their stock animals and thus their livelihood? Not all depredations were committed by bad dogs and wolves. A June 6, 1782 account of a "mad dog" detailed the problems of what must have been the beginning of a rabies epidemic. "Three weeks ago," recorded a Bethania resident, "a mad dog on a main road bit several dogs of

³⁴ Ibid., Volume V: Page 2333 and 2328; VI: 2627 and 2713; VII: 3382 and 3421; VIII: 3969.

³⁵ Ibid., Volume V: Page 2143.

³⁶ Ibid., Volume VI: Page 2567.

³⁷ Ibid., Volume V: Page 2140.

families living near...now [those] dogs have gone mad.”³⁸ These incidents tell a tale of a good animal gone bad. The activities of mad dogs lend insight into why wolves were persecuted with impunity, when in fact dogs inflicted equal damage and were controlled half-heartedly. This particular account included mention of other reports of mad dogs that circulated throughout the Moravian’s community. Warnings about mad dogs appeared side-by-side with wolf reports in the Moravian’s notes. A Salem diary entry in October 1783 included the following: “Recently there have been an unusual number of wolves in our neighborhood...Mad dogs are also about, and have done damage at various places.”³⁹

Two modern and contemporary writers, Barry Lopez and Rick Bass, stated in their work that wolves might actually adapt or learn to eat and attack livestock when traditional prey disappear or when older wolves have difficulty killing wild prey.⁴⁰ Wildlife biologists Philip S. Gipson, Warren B. Ballard, and Ronald Nowak co-authored two recent articles that support Lopez’s and Bass’ hypothesis.⁴¹

Among the issues explored by the modern biologists were the inflated numbers of livestock reported killed by wolves, the exaggerated ages of “famous western wolves”, and information about the hybrid character of these twentieth century canids. Gipson and

³⁸ Ibid., Volume IV: Page 1829.

³⁹ Ibid., Volume IV: Page 1843.

⁴⁰ Barry Holstun Lopez, *Of Wolves and Men* (New York: Charles Scribner’s Sons, 1978), 138; Rick Bass, *The Ninemile Wolves* (New York: Ballantine Books, 1992), 21-22 and 102.

⁴¹ Philip S. Gipson and Warren B. Ballard, “Accounts of Famous North American Wolves, *Canis lupus*,” *Canadian Field Naturalist* 112, no. 4 (October-December 1998): 724-739; Philip S. Gipson, Warren B. Ballard, and Ronald Nowak, “Famous North American Wolves and the Credibility of Early Wildlife Literature,” *Wildlife Society Bulletin* 26, no. 4 (Winter 1998): 808-816.

Ballard examined fifty-nine historical accounts of famous wolves west of the Mississippi River. They discovered that “seven wolves had traits that suggested they were hybrids with dogs,” and nineteen were ten years of age or older. The biologists posit that older wolves seek easy prey, such as livestock, rather than risk an early death while hunting virulent wild game. Furthermore, five of the canids in this study were known to play with dogs and three mated with dogs to produce hybrid litters.⁴²

A second article co-written by Gipson, Ballard and Nowak concluded: “Some famous wolves may have been wild dogs, wolf-dog hybrids, or coyote-dog hybrids, crosses commonly mistaken for wolves,” and “attacks on livestock by these canids, mistakenly identified as wolves, may have provided the basis for some accounts of famous wolves.” The biologists contended that dogs are aggressive, unpredictable, and may mutilate many animals. In contrast wolves “usually kill more efficiently, biting and tearing at the rear legs and head to disable their prey, then biting the throat to make the kill.” Wolves did, and do kill livestock. As in the past, single western wolves have killed 30 to 40 animals within a few days during the 1990s according to the authors’ sources. However, these two articles shed light upon the previously unexplored nature of canid depredations upon livestock, and to paraphrase the authors, represent a deserving defendant: wolves. “If, historically, dogs and hybrids were often mistaken for wolves, then the high killing rates [of livestock] reported may have resulted, not from exaggerations, but attribution of kills to the wrong predator species.”⁴³

⁴² Gipson et al., “Accounts of Famous North American Wolves, *Canis lupus*,” 724 and 737.

⁴³ Gipson et al., “Famous North American Wolves and the Credibility of Early Wildlife Literature,” 813.

As the Moravian's records illustrated, wolves and dogs both preyed upon livestock. Did the wolves attack livestock because their natural prey disappeared? When the buffalo disappeared from the Great Plains and new territory in the American West, wolves turned to the livestock that replaced the bison.⁴⁴ Modern journalist and writer Rick Bass claimed that the gray wolves he observed in Montana's Ninemile Valley did not hunt cattle despite living within a few hundred feet of livestock. Instead, the wolves hunted abundant game in the adjacent Rocky Mountains. Federal Montana wildlife biologists feared that locals who dumped the carcasses of dead livestock or leftover game killed on federal land might contribute to encouraging wolves to prey on livestock.⁴⁵ Comparisons between nineteenth and twentieth century wolves, dogs, and wild game in different regions are no doubt problematic and dangerous. The species and environments present many variables. However, human actions and land-use patterns display continuity throughout history. Furthermore, dogs inflicted damage upon North Carolina livestock, such that limited legislation left dog owners liable for damage done to other farmer's property throughout the nineteenth century.⁴⁶ But these laws did little for packs of feral dogs that no one claimed.

Legislation protected domesticated animals for economic purposes, and did not specifically protect humans for personal bodily injury. In the history of wolves in North

⁴⁴ Rick McIntyre, ed., *War Against the Wolf: America's Campaign to Exterminate the Wolf* (Stillwater, MN: Voyageur Press, 1995), Chapter Three, "Range War."

⁴⁵ Bass, *The Ninemile Wolves*, 102.

⁴⁶ North Carolina, *An Act concerning Mad Dogs* (1817), Chapter 14, and *An act increasing the power of the Commissioners of incorporated to Towns, in regard to Dogs within the same* (1817), *Laws of the State of North Carolina*, Chapter 26; North Carolina, *An Act for the Protection of Sheep* (1854-55), *Public laws of the State of North-Carolina*, Chapter 47; North Carolina, *Penalty for keeping a sheep-killing dog* (1883), *The Code of North Carolina* (New York: Banks and Brothers, Law Publishers, 1883), 116.

America, it is repeatedly stated that no known healthy wolf has attacked a human in the wild. No recorded incident has revealed itself in the annals of American or North Carolina's history and been verified. The *Records of the Moravians* only noted one wolf attack upon a human. On May 1, 1790 in Salem: "Wolves have been very bad in the neighborhood and even attacked men. Today, and again on the 15th, a wolf hunt was organized, and six young wolves were captured."⁴⁷

This lone Moravian entry about a wolf attack upon a human remains questionable. If a canid attacked a human, was it a mad dog or a rabid wolf? And did the Moravians recognize the difference between wolves, wild-dogs, or hybrids of the two? In 1824, the Bethabara's clergy canceled Sunday church services. Most of the village's men "had gone out again today, as they did yesterday, to try to find two dogs which had killed about thirty sheep belonging to the residents of the town. After much trouble they succeeded in killing the dogs."⁴⁸

European wolves preyed upon livestock and killed dogs before the colonial period, and North American wolves continued to do so into the present era. One cannot dismiss the possibility that wolves attacked livestock in the eighteenth or nineteenth centuries. However, the roles played by domestic dogs with and without homes in the Moravian communities of North Carolina cast a different interpretation of human and canid relationships. Today wolves interbreed with coyotes in particular habitats, and

⁴⁷ Fries, *Records of the Moravians*, Volume V: Page 2297.

⁴⁸ *Ibid.*, Volume VIII: Page 3714.

have done so with dogs in some situations.⁴⁹ Given these facts, the likelihood that the Moravians mistook dogs for wolves remains a real possibility. Problem dogs preyed upon domestic stock in western North Carolina well into the twenty-first century. However, only wolves experienced a legal, costly and systematic extermination across the country.

The question of which canid perpetrated particular attacks provides a bridge into the scientific observation of wolves during the eighteenth century. Wolves in colonial North America, while persecuted, received taxonomic attention, classification and categorization. Wolves did appear in the *Records of the Moravians* at least once as something other than a nuisance. Among the entries that concerned wolves, a 1765 villager conducted a fascinating survey of the native and exotic flora and fauna in the Moravian's settlement. Christian Gottlieb Reuter authored "Wachau or Dobbs Parish," a report that catalogued the uses of flora and habits of particular fauna. According to his entries, wolves were differentiated based upon their coloring, exhibiting black or gray varieties. Foxes however did include red, black and gray shades.⁵⁰ Most wolf accounts between 1757 and 1780 dealt with wolf sighting in the towns of Bethabara, Bethania, or Salem, of wolves caught in traps, and depredations upon livestock by various predators.⁵¹

⁴⁹ Marc Bekoff, "Coyotes: Victims of their own Success," *Canid News* Volume 3, 1995 [journal on-line]; available from <http://www.canids.org/PUBLICAT/CNDNEWS3/coyotes.htm>; Internet; last accessed 25 August 2002; Gipson et al., "Famous North American Wolves and the Credibility of Early Wildlife Literature," 813; James Harlan Shaw, "Ecology, Behavior, and Systematics of the red wolf (*Canis rufus*)" (Ph.D. diss., Yale University, 1975), 3.

⁵⁰ Fries, *Records of the Moravians*, Volume II: Page 577-78.

⁵¹ Ibid., Volume I: Pages 180, 236, 300, and 452; II: 903; IV: 1640.

According to former United States Department of the Interior wildlife biologists Stanley Young and Edward Goldman, authors of the first comprehensive taxonomic history *The Wolves of North America*, a scientist described the first wolf in 1758, and the scientific name *canis lycaon* was assigned specifically to the North American wolf in 1775.⁵² Traveling across the American southeast between 1773 and 1777, William Bartram observed a black wolf on Florida's east coast.

At Alachua Savannah in 1774, Bartram noted "a company of wolves (*lupus niger*) under a few trees," feasting upon the carcass of a dead horse. "We rode up towards them, they observing our approach, sitting on their hinder parts until we came nearly within shot of them, then they trotted off towards the forests." The intrepid Bartram continued to pen "the wolves of Florida are larger than a dog, and are perfectly black, except the females, which have a white spot on the breast, but they are not so large as the wolves of Canada and Pennsylvania, which are of a yellowish brown colour."⁵³ This discovery has been considered the first observation of a red wolf (later renamed *Canis rufus floridanus*) in the wild, and the scientific community credits William Bartram for this discovery.⁵⁴ While Bartram contributed to the taxonomic history of wolves, his companions continued to persecute wolves indiscriminately. Despite the fact that *Canis rufus floridanus* posed no physical threat to humans, one of Bartram's fellow explorers happened upon a litter of

⁵² Edward A. Goldman, "Part II: Classification of Wolves," ed. by Stanley P. Young and Edward A. Goldman, *The Wolves of North America* (New York: Dover Publications, Inc, 1944), 393; Ronald M. Nowak, *North American Quaternary CANIS* (Lawrence: University of Kansas and the Museum of Natural History, 1979), 25-25, 85-90.

⁵³ William Bartram, *Travels though North and South Carolina, Georgia and East and West Florida* (Savannah, GA: Beehive Press, 1973), 199.

⁵⁴ See Appendix I for more on the taxonomic history of *Canis rufus*.

wolf pups, caught one, and “beat out its brains with the but of his gun – barbarous sport!”⁵⁵

Colonists legitimately feared wolves that entered sheep pens and other predators that harmed livestock. Early records clearly note wolf activity within close proximity to humans. Other than the accounts detailed here, some do suggest that wolves attracted to the fresh blood and offal trailed hunters transporting their kills.⁵⁶ However, two reports that detailed an alleged attack upon humans east of the Mississippi by wolves are worth mention in addition to one previously discussed in the *Records of the Moravians*.⁵⁷ The first did not occur in North Carolina, but was recorded by noted naturalist John James Audubon in the 1830s.⁵⁸ The second incident occurred in western North Carolina in the 1850s. There, a rabid wolf attacked a stock herder’s dogs and then reportedly went after the human. The wolf was killed in the ensuing fight, but the stockman also put his dogs down two weeks later after they developed “hydrophobia.”⁵⁹

Stories that recalled “mad dogs” like the Beast of Gévaudan continued to incite human reactionary fear to wolves, but the state legislature proceeded to enact legislation to protect economic interests from destruction. Wolves permeated North Carolina from

⁵⁵ Bartram, *Travels*, 398.

⁵⁶ Ronald M. Nowak, “The Red Wolf in Louisiana,” *Defenders of Wildlife News* 42, Issue 1 (January-March 1967): 62.

⁵⁷ Fries, *Records of the Moravians*, Volume V: Page 2297.

⁵⁸ Christoph Irmscher, ed., *John James Audubon: Writings and Drawings* (New York: Literary Classics of the United States, The Library of America, 1999), 543-47.

⁵⁹ Charles B. Coale, *The Life and Adventures of Wilburn Waters: The Famous Hunter and Trapper of White Top Mountain* (Richmond, VA: 1878; reprint West Jefferson, NC: Reverend M.D. Hart, 1960), 48-51. Coale is alternately spelled “Coal” in some documents.

the coast to the mountains in the eighteenth century according to legislative acts and county records. Between 1715 and 1893 over thirty North Carolina acts instituted bounties on wolves and other predators.

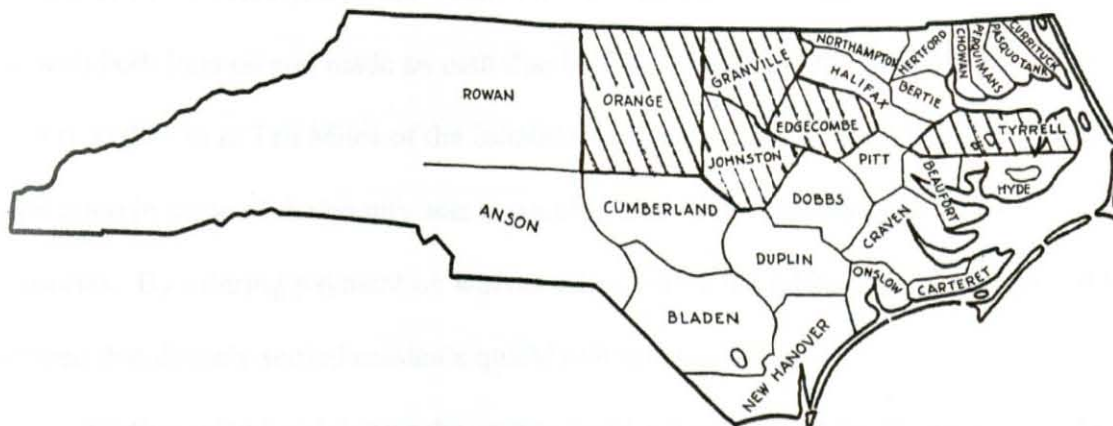
The bounty acts began to name counties individually in 1762 and included coastal communities such as Tyrell. Figures 2 through 5 document the specific counties explicitly empowered to pay bounties on vermin in the noted years. Additional legislation also included other coastal counties: Carteret under the 1769 act, Onslow (1773), New Hanover (1774), Currituck (1774), and Brunswick Counties (1774). [See Figure 3] As in preceding legislation, the colonial authorities directed, required, authorized and empowered county officials “to lay a Tax on the several Taxable Persons within the respective Counties for discharging” the bounties.⁶⁰ In 1764, Chapter 29 of the Laws of North Carolina empowered a total of twenty-three counties to collect taxes to pay bounties on predators, including wolves, wildcats, and panthers.

In accordance with the 1773 act to “encourage the destroying of Vermin,” county clerk Solomon Shepard of coastal Carteret County issued a certificate to a wolf hunter. “This may certify that William Mann Produced a Woolf Sculp with Both Ears on before me, one of his Majesties Justices & Made Oath that he Took & Killed the said Woolf in Carteret County.”⁶¹ Solomon signed the certificate on January 2, 1773 and approved Mann’s payment of ten shillings as noted on the certificate’s reverse-side. Shepard, in

⁶⁰ Clark, *The State Records of North Carolina*, Volume XXV: Page 476.

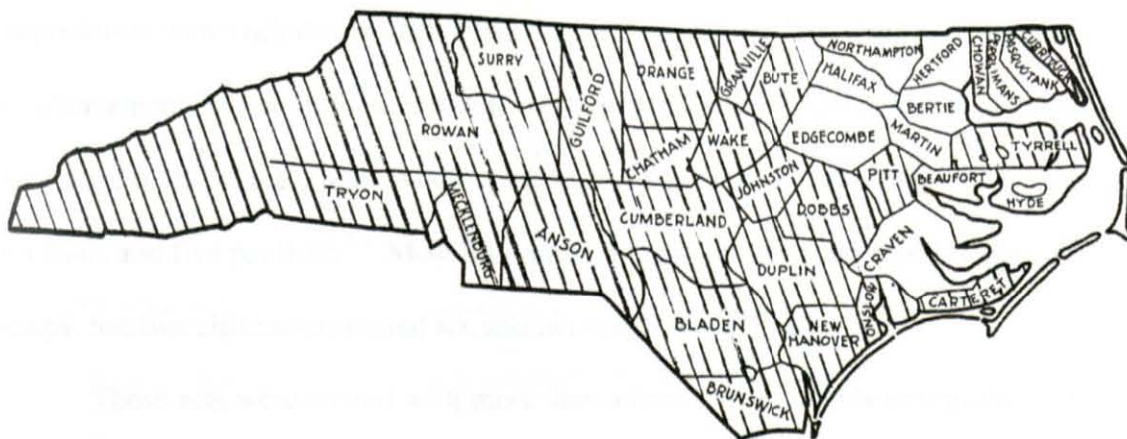
⁶¹ North Carolina State Archives, Raleigh, NC. Filed under County Records – Carteret County – Miscellaneous Records – Bounty Claims for Wolves 1773-1776, 1778.

Figure 2 – Counties Authorized to Pay Bounties: 1762



Adapted from L. Polk Denmark, found in D. L. Corbitt, *Formation of North Carolina Counties*, (1950).
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Figure 3 - Counties Authorized to Pay Bounties: 1769, 1773, & 1774



Adapted from L. Polk Denmark, found in D. L. Corbitt, *Formation of North Carolina Counties*, (1950).
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November of the same year, authorized that “John Meadows Brought a Woolfs Sculp to me with both Ears on and made an oath that he Took and Killed the same in the said County and With in Ten Miles of the Inhabitants from Under my Hand.”⁶² The ten-mile stipulation in some of the bounty acts is peculiar and would ultimately benefit local treasuries. By offering payment on wolves killed within ten miles of a “plantation,” this ensured that densely settled residents quickly eliminated wolves.

Further inland and during the county court’s August meeting one year later, the clerks of back-country Surry County compiled a list of the county clerks’ disbursements. Often the bounty acts required the local Magistrate to collect the certificates, create a list, and “transmit such List to the Vestry and Church Wardens.”⁶³ In Surry County, bounties on predators were included in such a list. The clerks’ detailed payments to jurors, reimbursements to commissioners for travel expenses, and wages for local laborers. Over the course of 1774, the county paid over £20 in bounties upon fifty-eight wolves, fourteen wildcats, and five panthers.⁶⁴ Most individual bounty hunters were paid for one to three scalps, but two citizens presented six and ten scalps respectively.

These acts were altered with more than a dozen amendments or repeals; there may have been more. Why did the North Carolina colonial and state legislature wage a legislative war against the wolf? The economic concerns of raising sheep amid wolves persisted among the accounts of landowners over the concerns of personal bodily injury.

⁶² North Carolina State Archives, Raleigh, NC. Filed under County Records – Carteret County – Miscellaneous Records 1741-1919 – Bounty Claims 1772, 1773, 1778.

⁶³ Clark, *The State Records of North Carolina*, Volume XXIII: Page 288.

⁶⁴ North Carolina State Archives, Raleigh, NC. Filed under County Records – Surry County – Miscellaneous Records – County Accounts, 1771-1829.

On December 5, 1777 a landowner wrote in the *North Carolina Gazette* in New Bern that “among the many losses that attend the planter and obstruct his success perhaps none are more so than the damage done by wolves and other noxious animals among our cattle, sheep and hogs, and it is known that colts and horses frequently become the prey” of similar predators.⁶⁵ The farmer argued that any increase in bounty payments, while difficult to accept initially, would ultimately pay off in the future. If wolves were exterminated more land would open up to development, cultivation, and commercial productivity, thereby expanding the tax base.

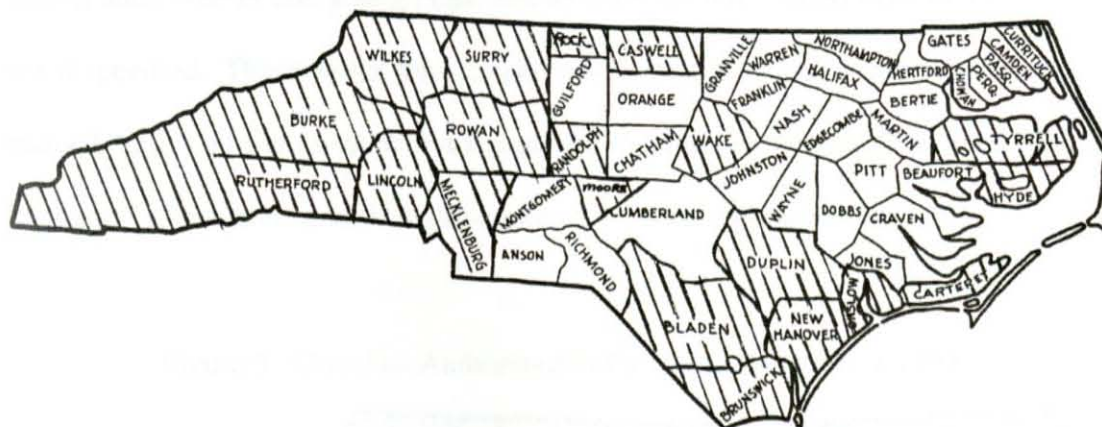
In an effort to protect settlers’ interests from predators, the General Assembly intensified efforts to eliminate wolves in the later half of the eighteenth century. North Carolina colonial and state legislators issued acts for destroying vermin such as wolves in almost every county in the state until 1893.⁶⁶ Other animals considered economic liabilities - crows, bears, squirrels, wildcats, and panthers – were often included in the same acts designed to remove wolves from the landscape. *An Act for destroying Wolves, Wildcats, Panthers, Bears, Crows and Squirrels* stipulated that absentee property owners who held title to land in twenty-three counties were ordered to pay an annual tax in dead crows and squirrels. All the counties empowered to pay bounties in accordance with this act are noted in Figure 4. The act declared, “that no constant residents in any of the

⁶⁵ Clark, *The State Records of North Carolina*, Volume XI: Page 812-13.

⁶⁶ *Public Laws of the State of North Carolina, Passed by the General Assembly* (Raleigh, NC: State publishers, annual volumes, 1873-1893). The Katherine Robinson Everett Law Library, University of North Carolina, Chapel Hill holds a collection of North Carolina Public and Private Laws, and Resolutions on microform. In conjunction with William Saunders and Walter Clark’s multi-volume series *The Colonial and State Records of North Carolina*, and John D. Cushing’s *Earliest Printed Laws of North Carolina, 1669-1751*, the microform and published *Public Laws of the State of North Carolina* offer complementary sources of legislative sources. No one source is comprehensive by nature.

towns in the counties in this Act mentioned, shall be included in this Act for their taxables in such town.”⁶⁷ This section of Chapter 28 was repealed in 1787, presumably at the behest of absentee landlords.⁶⁸

Figure 4 - Counties Authorized to Pay Bounties: 1785



Adapted from L. Polk Denmark, found in D. L. Corbitt, *Formation of North Carolina Counties*, (1950).
Reprinted with the permission of North Carolina State Archives.

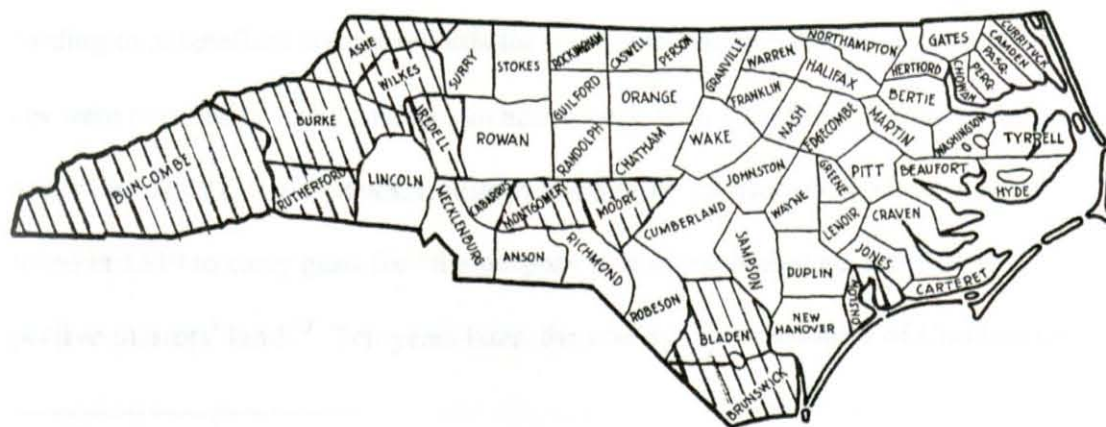
The language and scope of the bounty legislation changed from act to act. The number of counties explicitly named to enforce bounty payment rose and fell as the wolf population diminished from the eastern to western sections of the state as shown in Figure 2 through 5. A handful of counties, such as the far-upper east counties like Hertford and Chowan in the east did not appear in any of the legislative acts. The peak of legislation occurred between 1769 and 1796 in eastern Carolina, but the crest rolled like a

⁶⁷ North Carolina, *An Act for Destroying Wolves, Wildcats, Panthers, Bears, Crows and Squirrels in Several Counties therein Mentioned*, *Laws of the State of North Carolina and The Titles of the Private Acts* (1785), Chapter 28, section 3.

⁶⁸ North Carolina, *An Act to repeal part of An Act Passed at New Bern etc.*, *Laws of the State of North Carolina and The Titles of the Private Acts* (1787), Chapter 24.

wave's cap across the western part of the state until 1893. Bounty payments varied from 10 to 20 shillings, and later from \$2 to \$20. The state-mandated payments represented the maximum allowable payment; an individual county could determine what their jurisdiction actually paid. The acts delineated between the amount of payment for the scalps of adult wolves and young pups, and an act's life term varied from two to five years if specified. These public laws consistently reminded citizens that their regions remained "much infested with Wolves, and other Vermin, to the great Prejudice of the Inhabitants" of the state, and were often passed without expiration dates.

Figure 5 - Counties Authorized to Pay Bounties: 1796 & 1797



Adapted from L. Polk Denmark, found in D. L. Corbitt, *Formation of North Carolina Counties*, (1950).
Reprinted with the permission of North Carolina State Archives.

The economic concerns of raising livestock continued to dominate those of personal injury in the word and letter of the law. Bounties were offered in Wilkes, Buncombe, and Ashe Counties at the turn of the nineteenth century as Blue Ridge mountain residents turned to sheep herding. Wilkes County instituted a bounty in 1796,

followed by Buncombe County in 1801.⁶⁹ Ashe County was first empowered by the General Assembly in 1815 to pay bounties on wolves and panthers, and again in 1828 to “encourage the raising of sheep and for the destruction of wolves” with a \$2.50 bounty.⁷⁰

African American slaves were entitled to collect these bounties. Given their job expectations slaves presumably came in contact with predators. Slaves often tended to livestock during the antebellum era in western North Carolina according to John C. Inscoe. In *Mountain Masters: Slavery and the Sectional Crisis in Western North Carolina*, Inscoe dispelled the myth that slavery did not exist in antebellum Appalachia. However, his descriptions of slaves’ relative freedom of movement as livestock herders, hunting guides, and travelers did not include any mention of predator control.⁷¹ According to antebellum county records for one costal and one piedmont county, three slaves were certified to carry firearms in accordance with the 1741 *Act Concerning Servants and Slaves*. Two slaves, Lothario and Sherry, of Brunswick County were certified in 1819 to carry guns for “the purpose of hunting and protecting” their respective masters’ land.⁷² Ten years later, the county commissioners of Cumberland

⁶⁹ North Carolina, *An act to empower the county court of Wilkes, Burke, Montgomery, Onslow, and Moore, to lay a tax for the purpose of destroying wolves and panthers in said counties, Law of the State of North Carolina and The Titles of the Private Acts* (1796), Chapter 65; North Carolina, *An act to empower the County Courts of Wilkes, Moore, Ashe, to lay a tax for the purpose of destroying Wolves in said counties, Laws of the State of North Carolina and The Titles of the Private Acts* (1801), Chapter 85.

⁷⁰ North Carolina, *An Act to encourage the destruction of Wolves in Ashe County, The Laws of North Carolina* (1815), Chapter 35; North Carolina, *An act to encourage the raising of sheep and for the destruction of wolves in Ashe, Acts Passed by the General Assembly of the State of North Carolina* (1828-1829), Chapter 160.

⁷¹ John C. Inscoe, *Mountain Masters: Slavery and the Sectional Crisis in Western North Carolina* (Knoxville: University of Tennessee Press, 1989), 89.

⁷² North Carolina State Archives, Raleigh. County Records – Brunswick County – Miscellaneous Records, 1786-1925 – Permit to Carry Firearms, 1819.

County authorized William Lord's slave Tom to hunt on his plantation.⁷³ None of these documents expressed the intention of these men to hunt predators, but did grant the slaves the right to protect their master's property. The location of those counties and the legislation in place does not suggest that they were employed to protect livestock from predators. Records for antebellum mountain counties did not reveal if mountain slaves were certified to carry firearms to hunt predators. However, given Inscoe's description of mountain slaves' responsibility of tending free-range hogs in western North Carolina, mountain slaves would have been required to participate in predator control.⁷⁴

African homelands no doubt contained friendly and unfriendly animals, and this was not likely forgotten during the process of forced acculturation in America. A story that has circulated widely revealed a complicated relationship between wolves and slaves in Kentucky. During the nation's expansion in the nineteenth century, John James Audubon traveled widely throughout the southeast and middle part of the country. Audubon kept extensive journals during travels along the Ohio and Missouri Rivers in the Mississippi Valley. He filled his journals with references to wolves and other animals including the passenger pigeon.⁷⁵ As a naturalist who traveled widely, Audubon recorded only one story about a wolf attack upon a human.

Audubon's journal relied upon oral transmission of this particular slave-wolf confrontation. He was quite removed from a tale of two slaves attacked by wolves along

⁷³ North Carolina State Archives, Raleigh. County Records – Cumberland County – Miscellaneous – Slave Records – Bond of William Lord for Tom to carry a gun for hunting purposes, 1829.

⁷⁴ Inscoe, *Mountain Masters*, 64.

⁷⁵ Irmischer, *John James Audubon*, 54, 262, and 551-749.

the Ohio River in Kentucky. Audubon himself recounted the story in 1835, apparently the first to do so two years after hearing the tale. The story line followed two slaves on a journey to visit their “sweethearts.” Like many wilderness tales and horror stories, this one took place after dark, and during the cold winter months. After a few miles the men were ambushed by a pack of wolves: one man survived, the other perished, and three wolves were killed.⁷⁶

Audubon perhaps took literary liberties with this story. He detailed how the leg of one man was “held fast as if pressed by a powerful screw, and the torture inflicted by the fangs of the ravenous animal was for a moment excruciating.” In the journal that recorded this story, Audubon did not suggest that he met the survivor. Audubon told his readers that the lucky slave named Scipio, after seeking refuge in a tree while his partner was torn apart, slid to the ground, and “made the best of his way home, to relate the sad adventure.”⁷⁷ Perhaps the story was originally concocted to keep children from wandering at night, but more likely to insure that slaves did not runaway in an act of resistance. Maybe the pack was of loose dogs, trained to track run-away slaves? Regardless of the story’s intended audience, slaves experienced a relationship with wolves every bit as complex as did whites and Indians. Empowered to protect property, hunt predators, carry firearms, and collect bounties, slaves remained the property of another human.

⁷⁶ Ibid., 545. This story has been reprinted widely, including Clarence Gohdes, “Hunting in the Old South,” *The Georgia Review* 19, no. 3 (Fall 1965): 350-354; and Rick McIntyre, ed., *War Against the Wolf: America’s Campaign to Exterminate the Wolf* (Stillwater, MN: Voyageur Press, 1995), 47-50.

⁷⁷ Irmscher, *John James Audubon*, 545.

While slaves and Americans hunted wolves, powerful interests shaped perception and legislation. One such example is a letter from Thomas L. Clingman to J.S. Skinner, Esq., in the North Carolina House of Representatives on February 3, 1844. Clingman, a future United States Senator and Confederate war hero, described the economic benefits of pasturage in Yancey County to Skinner. However, he also detailed the potential hazards of keeping sheep: "They are not unfrequently destroyed by vicious dogs, and more rarely by wolves, which have not yet been entirely exterminated."⁷⁸ In 1834 a two-dollar bounty on wolves and panthers was instituted in Yancey County where wolves apparently remained a problem until almost 1900.⁷⁹ Yancey County was among the last five counties authorized to pay five-dollar bounties on panthers, wildcats, and wolves in 1893.⁸⁰

Legislative history is problematic: there is little documentation pertaining to enforcement beyond a few certificates and the limited records from county clerks. Judging from the amount of legislation and reports from concerned agriculturalists and travelers, wolves were a problem. However, the skeptic might question if the wolf and predator problem was less serious than the legislation might have indicated. Was the bounty legislation and popular fear simply a means for local jurisdictions to increase tax revenue, thus absolving the state from fiscal responsibility? Was legislation a further

⁷⁸ Charles Lanman, *Letters from the Alleghany Mountains* (New York: George P. Putnam, 1849), 184.

⁷⁹ North Carolina, *An Act to empower the county courts of Yancy county to lay a tax to encourage the destruction of Wolves and Panthers in said county, Acts Passed by the General Assembly of the State of North Carolina* (1834-35), Chapter 167.

⁸⁰ North Carolina, *An act to encourage the killing of certain wild animals, Public Laws and Resolutions Passed by the State of North Carolina, Passed by the General Assembly* (1893), Chapter 43.

means to force permanent settlement of land, and terminate the relative freedom from a market economy that early settlers enjoyed? Whatever the answer, if the wolf population were so large, it seems odd that there is so little fossil evidence of eastern wolves.

Between the experiences of Thomas Hariot and Thomas Clingman, human and wolf relationships remained complicated, but not just for Europeans, Americans, and Africans. Within these experiences, James Mooney and John Finger noted that the Cherokee continued to play a part in changing the forested landscape. James Mooney's history of the Cherokee must be understood in context of the contemporary relationship between the Cherokee and Euro-American culture.

The Cherokee faced constant pressure to assimilate with white culture, and no matter how civilized the Cherokee became, white culture never accepted the strides in the Indians' civilization program. Historian John Finger characterized nineteenth century Cherokee culture as persistent in traditional ways and also accommodating to Euro-American culture.⁸¹ Despite adaptation to Euro-American political, social and economic institutions, the Cherokee faced relocation to Oklahoma in 1838 as mandated by the President of the United States. However, not all of the Cherokee traveled the Trail of Tears to Oklahoma. Approximately 1,400 Indians evaded removal and remained in North Carolina. Some served in the Confederate Army during the Civil War, others attended authoritative government schools, and all faced a denial of citizenship. After

⁸¹ John Finger, "Cherokee Accommodation and Persistence in the Southern Appalachians," in *Appalachia in the Making: The Mountain South in the Nineteenth Century*, eds. Mary Beth Pudur, Dwight B. Billings, and Altina L. Waller (Chapel Hill: University of North Carolina Press, 1995), 25-49.

such conquest and persistence, the Cherokee continued upon a course of cultural syncretism with Euro-American culture as Mooney's collection illustrated.

Based on Mooney's record, the Cherokee either adapted new methods of wolf hunting that included use of firearms, or they incorporated the new methods into an old story line in the process of nineteenth century acculturation. The Cherokee, like Euro-Americans living in western North Carolina liked to hunt according to John Finger. Citing an 1849 report to United States Secretary of War, Finger noted that numerous animals were hunted in the Cherokee's main western North Carolina town-center Quallatown in 1844: 540 deer, 78 bear, 18 wolves, and 2 panthers. Finger further stated that by 1850, the Census recorded that 700 Cherokee residents of Haywood County owned over 1,300 domesticated animals.⁸²

Wolves were not the only predatory animals hunted by Cherokee specialists. Golden eagles were hunted in similar fashion as wolves, and the eagle feathers featured prominently in rituals and war ceremonies. A professional eagle hunter "was paid for his services...as the few professionals guarded their secrets carefully from outsiders" and established a profitable business in Mooney's analysis.⁸³ Primarily using a bow and arrow, the hunter waited nearby a deer carcass that was laid out as bait for the eagle. The hunter chanted, calling to the bird like the wolf hunter did, and asked the bird's spirit for forgiveness upon killing the eagle. But unlike the wolf, Mooney stated that the hunter

⁸² John R. Finger, *The Eastern Band of the Cherokees, 1819-1900* (Knoxville: University of Tennessee Press, 1984), 62 and 70; "Quallatown Indians," *Friends' Weekly Intelligencer* (31 March 1849): 2-3.

⁸³ James Mooney, *History, Myths, and Sacred Formulas of the Cherokees*, ed. George Ellison (Asheville, NC: Historical Images, 1992), 282.

asked the bird's spirit to seek vengeance not upon a Cherokee, but a Spaniard. Writing in 1890, Mooney stated that such a specific victim of vengeance was "evidence at once of the antiquity of the prayer...and of the enduring impression which the cruelties of the early Spanish adventurers made upon the natives."⁸⁴

Like the Spanish, other white men might also feel the retribution of a wolf's spirit. Cherokee villagers apparently hired white men to kill problem wolves, and without the proper prayers, Euro-Americans were doomed to suffer whatever bad luck the animal's spirit brought in the future.⁸⁵ The relationship between the Cherokee and the wolf was just as complicated as between the Euro-American and the wolf.

Despite observations of timid wolves by John Lawson, William Byrd, and John Brickell, wolves remained feared by Europeans, Americans, Africans, and Indians. The deer hide trade in North Carolina complicated matters by increasing the population of wolves that preyed upon abandoned deer carcasses left by Euro-Americans and Indian hunters. Between the early colonial period and the antebellum era North Carolina legislative bodies authorized local communities and counties to accumulate tax dollars to pay bounties. These same legislators empowered African slaves to hunt for the purpose of protecting their master's livestock from predators and entitled them to collect bounty payments. While wolves were considered useless in the wild, they assumed value when captured and killed.

⁸⁴ Ibid., 265.

⁸⁵ Ibid., 448.

Considered thieves, legislation treated wolves like criminals condemned to death for their activity. That same colonial legislation also turned wolves into property. Once the animal was killed, wolves were protected like property, as by civil law. Wolves were thus reduced to another natural commodity. The American Civil War briefly halted wolf hunting from a legislative perspective, and may have actually contributed to a population increase. Bounty acts in place before the Civil War never expired and were buoyed by additional legislation implemented during the post-war Reconstruction period.

Chapter Three

"The Better Protection of Sheep" and Wolf Farming: The Decline of the Wolf in Western North Carolina, 1870-1930

The American Civil War disrupted the thinning of wolves from the North Carolina landscape. This apparently led to an increase in western North Carolina wolf populations as human families concentrated instead on sending kin off to war and on daily survival. There was little incentive to hunt wolves. Without tax collection, bounties could not be paid, and ammunition was scarce. After the war farmers continued to raise sheep, hogs, and cattle in the Southern Appalachians, and as before the war, the economic concerns associated with protection of livestock continued to inspire bounty legislation in the further reaches of western North Carolina until 1893. Wolves faded from the landscape around 1900. However, dogs did not, and they continued to shape their own dynamic relationship with humans.

Bounty legislation, fishing restrictions, hunting regulations, and fencing laws dominated the public record in North Carolina throughout the eighteenth and nineteenth centuries.¹ North Carolina historian John Preston Arthur argued that wolf populations

¹ Harry L. Watson, "The Common Rights of Mankind": Subsistence, Shad, and Commerce in the Early Republican South," *The Journal of American History* 83 (June 1996): 13-43.

increased during and immediately after the American Civil War.² Arthur's stories about the western region of the state contained no references and limited bibliographical information. Arthur recorded two stories about wolf hunters that illustrated the complex nature of wolf and human relationships, and demonstrated that the violence unleashed upon wolves by men was motivated not by absolute fear, but economics.

Arthur stated that two brothers from Ashe County, North Carolina, Nathan and Gideon Lewis, Jr., hunted wolves for years. Judging from Census records the Lewis brothers were between the ages of thirty and fifty in 1860.³ The Lewis brothers admittedly followed pregnant wolves to discover den sites, then returned frequently to determine when the pups were born, and promptly raided the den. While one brother "crawled in and secured the pups, from six to ten in each litter," the other brother, a highly socialized predator himself, stood watch outside.⁴ They allowed the mother to run free. "When asked why he never killed grown wolves, Gideon Lewis answered: 'Would you expect a man to kill his milch-cow?'" Arthur reported that the Lewis' collected \$2.50 per wolf scalp, the equivalent payment for a single adult scalp. Assuming that the Lewis

² John Preston Arthur, *Western North Carolina History: 1730-1913* (Raleigh: Edwards and Broughton Printing Co., 1914; reprint, Spartanburg, SC: The Reprint Company, 1973), 523; John Preston Arthur, *A History of Watauga County, North Carolina: Sketches of Prominent Families* (Richmond, VA: Everett Waddy, Co., 1915; reprint, Easley, SC: Southern Historical Press, 1976), 199; Durwood Dunn, *Cades Cove: The Life and Death of a Southern Appalachian Community, 1818-1937* (Knoxville: University of Tennessee Press, 1988), 30.

³ U.S. Department of Commerce, Bureau of the Census, *Eighth Census of the United States, 1860: Population Schedule*, North Fork District, Ashe County, North Carolina (Volume 1): pages 58 and 60.

⁴ Arthur, *Western North Carolina History*, 522.

brothers lived until the 1890s, it is conceivable that Arthur met these wolf hunters, or heard of their exploits from their immediate relatives.⁵

Aside from the problematic nature of documenting the history of early Southern Appalachia, the Lewis brothers did not invent den raiding, or what I will call wolf farming. According to a transcribed portion of the *Minutes of the Court of Pleas and Quarter Sessions: Iredell County North Carolina*, between 1797 and 1799 thirty bounty payments on wolves were made.⁶ These minutes detailed the payment to individuals who killed individual animals, but also raided wolf dens. These den-raiders produced before the magistrates between five and nine “young” wolves, and only one animal specified as an adult. This form of wolf hunting represented an annual harvest that benefited the bounty hunter. Rather than serving to scare the settler, the wolf assumed the role of a predictable commodity. Wolf farming did not end with the demise of the wolf in North Carolina. Barry Lopez cited Ben Corbin as one who practiced “wolf farming – or raising wolves for bounty.” Corbin, a professional North Dakota wolf hunter in the 1890s, declared that “raiding dens for wolf pups but leaving the mother to breed the next year” was a common practice.⁷ While a big jump in history, the twentieth century federal government institutionalized canid farming. The United States Department of the Interior

⁵ U.S. Department of Commerce, Bureau of the Census, *Tenth Census of the United States, 1880: Population Schedule*, North Fork District, Ashe County, North Carolina (Volume 1): page 11-12.

⁶ Shirley Coulter, Edie Purdy, and Lois Schneider, eds., *Minutes of the Court of Pleas and Quarter Sessions: Iredell County North Carolina, 1789 to 1800* (Statesville, NC: Abstract Publishers, 1978), 114, 123, 124, 130, 138, and 141. County records in the North Carolina State Archives contain limited and incomplete data on the number of bounties paid to the colonial settlers and state residents. If one desired to compile statistics on the quantity and monetary value of bounties paid to determine a rough wolf-population figure for a particular county within a particular time period, the county court minutes would likely reveal such information.

⁷ Barry Holstun Lopez, *Of Wolves and Men* (New York: Charles Scribner's Sons, 1978), 185.

published a circular in 1945 that outlined the procedures and tools required to successfully hunt coyotes in their dens.⁸

North Carolinian John Preston Arthur stated that the Lewis brothers relied upon an area known as Wolf's Den on Riddle's Knob in Watauga County, North Carolina to locate 'their' litter of wolves every spring.⁹ This remains difficult to comprehend for many reasons. It would seem that the same wolves would not seek the same den, or geographic area season after season to unsuccessfully raise a litter. However, different wolf families in Canada and Alaska have used the same den from season to season for centuries according to wildlife biologists.¹⁰ A second equally complex issue lies in the mentality of the wolf farmers. On the one hand the adult wolves represented realistic pests to livestock, and mythical danger to humans. But for the Lewis duo, the helpless wolf pups represented a commodity for den raiders to nurture and trade when the season presented itself.

The wolves of western North Carolina provided economic benefit and labor specialization for not only the Lewis brothers. Wilburn Waters, another famed western North Carolina mountaineer, became a wolf hunter at age twenty after he apprehended a trap-shy and old wolf that terrorized his employer. Before the Civil War, Waters trapped wolves for sixty stock-herders from the town Whitetop, located on the Virginia,

⁸ Stanley Young and Harold W. Dodyns, *Coyote Control by Means of Den Hunting* (Washington, DC: Government Printing Office, 1945), 8 pp.

⁹ Arthur, *A History of Watauga County*, 199. Riddle Knob likely changed to Rittle Knob; see William Powell, *The North Carolina Gazetteer* (Chapel Hill: University of North Carolina Press, 1968) and *North Carolina Atlas & Gazetteer*, 4th edition (Yarmouth, ME: DeLorme, 2000), 13 C6.

¹⁰ L. David Mech and Jane M. Packard, "Possible Use of Wolf, *Canis lupus*, Den Over Several Centuries," *Canadian-Field Naturalist* 104, no. 3 (March 1990): 484-485.

Tennessee, and North Carolina border, to Roan Mountain, Tennessee, approximately thirty miles due north of Asheville, North Carolina. The farmers “drew up an obligation to give him one sheep for every wolf he would capture, in addition to the five dollars’ bounty given by the county for each scalp.”¹¹ Imitating a howling wolf, Waters apparently tricked wolves to seek him out, after which “when wolves who heard his call appeared, he shot them from his place of concealment.”¹² On another hunt Waters killed a male wolf, then tracked a female wolf and three pups to their den. The five wolf scalps earned Waters \$175 according to local color writer Charles B. Coale. After the Civil War, Waters continued to sell his services to Ashe County stockmen until he was in his sixties.¹³

The thought of wolf cultivation or mock howling does not lend itself to honorable or sportsmen-like hunting in a traditional sense. However, killing game like deer for food did not parallel killing wolves for profit. The work of Waters, like that of the Lewis brothers, characterized wolves as objects to serve human economic needs and provide a means of steady income. The Lewis’ consciously choose not to over-harvest their crop. Waters also killed wolves for a living, hired by men of wealth who consciously sought to remove an economic liability from their financial plan. Furthermore, wolves provided a

¹¹ Charles B. Coale, *The Life and Adventures of Wilburn Waters: The Famous Hunter and Trapper of White Top Mountain* (Richmond, VA: 1878; reprint West Jefferson, NC: Reverend M.D. Hart, 1960), 33 (page citations are to the reprint edition). Coale is alternately spelled “Coal” in some documents.

¹² Arthur, *Western North Carolina History*, 523. Arthur called Waters “Welborn.”

¹³ Coale, *The Life and Adventures of Wilburn Waters*, 7, 16-17, 36; Paul Schullery, “The Hermit Hunter of Whitetop,” *Wildlife in North Carolina* 53, no. 12 (December 1989): 12-15.

niche that created a state authorized and county subsidized income for hunters that continued until the 1890s.

During the 1873 and 1874 sessions, a bounty act called for “the better protection of sheep” in nine western North Carolina counties including Cherokee, Jackson, Swain, Haywood, and Buncombe counties.¹⁴ [See Figure 6] The bounty was set at \$3. The legislature also empowered Buncombe County alone to raise their bounty to \$20 per wolf to protect sheep in 1881. This specific act was “in force from and after its ratification.”¹⁵ According to Dr. Gaillard S. Tennent of Asheville, the last known wolf sighting in Buncombe County occurred in 1890.¹⁶ The following eight years included three more acts to protect sheep and other domestic animals in Madison, Haywood, Transylvania,

¹⁴ North Carolina, *An Act for the better protection of sheep in Cherokee, Graham, Swain, Jackson, Transylvania, Haywood, Clay, Henderson, and Buncombe Counties, Laws and Resolutions of the State of North Carolina* (1873-72), Chapter 113. Despite its proximity to counties “much infested” with wolves, one county never received mention in the numerous acts. Macon County was surrounded by Clay, Cherokee, Graham, Swain, and Jackson Counties, which were authorized to make bounty payments. Why Macon eluded mention in the state legislation eludes me. Established as an independent county in 1828, I found Macon mentioned only once in regards to protecting livestock as personal property. In a sign of complicated animal and predator relationships, the State Legislature passed (1854) a livestock protection act that protected residents’ domestic stock from theft and death at the hands of people, not predators. See: North Carolina, *An Act to Protect Livestock from Malicious Destruction, Public Laws of the State of North Carolina* (1854-55), Chapter 28.

¹⁵ North Carolina, *An Act to protect sheep in Buncombe County from the ravages of wolves* (1881), Chapter 268.

¹⁶ Dr. Gaillard S. Tennent, Asheville, NC, to Mr. Arthur Stupka, Gatlinburg, TN, 21 August 1953, Park Mammal Records – *Canis lupus* File, Eastern Timber Wolf, Great Smoky Mountains National Park Archives, Gatlinburg, TN. For additional reports on wolf sightings in western North Carolina, see: Donald Linzey, *Mammals of Great Smoky Mountains* (Blacksburg, VA: The McDonald and Woodward Publishing Company, 1995), 67-68.

indeed damage sheep. But like antebellum booster Thomas Clingman, the herder claimed the dogs did just as much damage.¹⁸

As dogs inflicted economic damage upon livestock, reports of lingering wolves appeared over the next decade. When the last wolves were killed in western North Carolina will never be known. In Haywood County one report marked 1887 as the date of the last gray wolf-kill.¹⁹ However, the story of eighty-two-year-old Jonathan Moody complicated this. Apparently as a wolf farmer, the elderly Moody collected \$60 for the scalps of six young wolves in 1893.²⁰ The *Bryson City Times*, a Swain County newspaper, apparently documented wolves near Clingmans Dome in the 1890s.²¹ In fact, the County Commissioners of Swain County did pay D.F. Connor \$3 for a wolf scalp in 1894.²² Buncombe County was included with Yancey, Mitchell, and Madison Counties

¹⁸ Wilbur G. Zeigler and Ben S. Grosscup, *The Heart of the Alleghanies or Western North Carolina* (Raleigh, NC: Alfred Williams, 1883), 149.

¹⁹ William David Webster, James F. Parnell, and C. Briggs, Jr., eds., *Mammals of the Carolinas, Virginia, and Maryland* (Chapel Hill: University of North Carolina Press, 1985), 181.

²⁰ Robert Beverley, *The Western North Carolina Almanac and Book of Lists* (Franklin, NC: Sanctuary Press, 1991), 6. According to Beverley, the incident was reported in *Waynesville Courier* (2 June 1893). But the North Carolina Department of Archives and History microfilm series declares: "No Issues Located" for the years 1889-1896. Moody was born in 1805, and was listed as Jonathan H. and Jonathan S. alternately throughout the *North Carolina Census*. To complicate matters, after 1870 a Jonathan Moody (then age 75) of Haywood County disappeared from the *North Carolina Census*. See: Dr. Robert Medford, and Connie Medford, eds., *The Families of Haywood County* (Haywood County, NC: Dr. R. Medford, 2002), and Frances Moody Nadeau, ed., *The Moody Family of Western North Carolina and Scattered Descendents* (Toccoa, GA: [?], 1982), 229.

²¹ George Ellison, "Mountain Voices: Wolves Have Long Been Fodder for the Imagination," *The Smoky Mountain Times* (Bryson City, North Carolina), October 3-9, 2001, 50.

²² "Annual Statement," *Bryson City (North Carolina) Times*, 18 January 1895.

in 1893 as the last counties authorized to levy taxes to pay bounties on wolves, panthers, and wildcats or catamounts.²³

Despite the continued and concerted efforts of ranchers, farmers, landowners, and legislators to protect their economic livelihood, an undercurrent of change persisted in the state that reflected a national trend. According to the legislative history, constituents lobbied for wildlife management as way as to insure their survival and not chart their demise in the 1890s. Good wildlife, such as ducks and deer, received protection in eastern counties while the wolf was hunted to extinction in the western section of the state.²⁴

By 1900 wolves had nearly passed from the western North Carolina landscape. Donald W. Linzey, in *Mammals of Great Smoky Mountains*, detailed over a dozen reports of wolves in the southern Appalachian Mountains leading up to that date.²⁵ Naturalists and scientists, such as Clement Samuel Brimley, the brother of the North Carolina State Museum of Natural Science's first curator, wrote in 1905 about various reports of wolves in western North Carolina. An article by Brimley in the North Carolina Academy of Sciences' official publication noted that local sources reported wolf kills in Graham,

²³ North Carolina, *An act to encourage the killing of certain wild animals, Public Laws and Resolutions Passed by the State of North Carolina, Passed by the General Assembly* (1893), Chapter 43. Eastern, landlocked, and well populated, the Piedmont county of Cumberland was added to this act as an amendment (Chapter 463); perhaps Cumberland experienced a resurgence of one predatory species noted in the original act.

²⁴ North Carolina, *An Act to create the office of game-keeper in Currituck County, Laws and Resolutions of the State of North Carolina* (1891), Chapter 487; North Carolina, *An Act to prohibit killing of deer in Caldwell County, Public Laws and Resolutions of the State of North Carolina* (1899), Chapter 722; North Carolina, *An Act for the protection of foxes in Alleghany county, Public Laws and Resolutions of the State of North Carolina* (1899), Chapter 676.

²⁵ Linzey, *Mammals of Great Smoky Mountains*, 67-68.

Cherokee, Buncombe, Yancey, Caldwell, and Watauga Counties.²⁶ Brimley's notes reported that the last wolves were killed in the Great Smoky Mountains in 1905.

Biologist Ronald Nowak claimed that these were red wolves.²⁷ Establishing the species of these wolves with certainty is difficult as only one archeological collection of remains from Macon County shows that the red wolf did indeed roam the region's mountains.²⁸

Three other 1930s references to wolves and the Southern Appalachian Mountains remain for integration into the chronological history of wolves in North Carolina. Each source reinforced an aspect of how and why Americans treated wolves as they did over the past four hundred years. The first involved C.N. Mease who worked as a game warden during the North Carolina Conservation and Development Department's infancy in the late 1920s and early 1930s. Mease brought three domestically farmed wild turkeys to Mount Mitchell as part of a project to repopulate over-hunted state game lands. In 1930 Mease related a story to a reporter from Asheville's *Sunday Citizen* about how those birds died. James Cordell, the warden of the Mount Mitchell Reserve heard a ruckus one morning and upon inspection found three dead turkeys. According to Mease, Cordell "waited a few minutes and suddenly a large, dog-like animal sprang across the fence. He

²⁶ C.S. Brimley, "A Descriptive Catalogue of Mammals of North Carolina," *The Journal of the Elisha Mitchell Scientific Society* 21, Issue 1 (March 1905): 27.

²⁷ Ronald M. Nowak, "Report on the Red Wolf," *Defenders of Wildlife News* 45, Issue 1 (January-March, 1970): 87. Robert Beverley claimed that the last red wolf kill in the Great Smokies occurred in 1905, and cited his source as the *Asheville Citizen-Times* journalist Bob Satterwhite. See: Robert Beverley, *The Western North Carolina Almanac and Book of Lists* (Franklin, NC: Sanctuary Press, 1991), 7.

²⁸ North Carolina State University holds a *Canis rufus* maxillary fragment from Macon County, North Carolina, see: Ronald M. Nowak, "The Original Status of Wolves in Eastern North America," *Southeastern Naturalist* 1, no. 2 (2002): 95-130, Appendix 1, page 129.

fired and killed the wolf-dog which was later identified as such in Washington, DC.”²⁹ A wolf in imagination, but a wild dog according to biological analysis.

The second report in an Asheville paper involved a Haywood County man. Wilburn Parker, an employee for the Sherwood Forest Company, observed a dog-like animal running on the property near the Spruce-Cecil Township. “He discovered that a wolf, or coyote, was on his place.” Parker’s Plott hounds “soon overtook the wolf. Then a spectacular fight began. The wolf was game and put up a terrific battle, but was overpowered and killed.”³⁰ Journalist and Haywood County historian William Cicero Allen romanticized the role of a hunter, his dogs, and what was probably not a wolf. The wild animal had only two options: fight or be shot. In Allen’s interpretation and Parker’s imagination, the wolf-like animal rose to the status of prized fighter with powerful instincts. A single wild animal killed by multiple domestic animals, trained to function as hunting tools.

By the last decade of the nineteenth century wolves became rare in North Carolina, and within another ten years extinct. The wolf sightings in the early twentieth century may have been real, but were most likely wild dogs, coyotes, or a hybrid combination. According to the United States Fish and Wildlife Service, hunters imported coyotes into Tennessee in the 1930s. These sportsmen wanted to introduce a new animal

²⁹ Starlin Walker, “Mease Works for Future of N.C. Wildlife,” *The (Asheville, North Carolina) Sunday Citizen*, 29 June 1930, A1.

³⁰ W.C. Allen, “Plott Bear Hounds Are Famous in the History of Sports in Haywood County,” *Asheville (North Carolina) Citizen-Times*, 30 April 1933, B3.

to their state for the purpose of adding some spice to dog hunting.³¹ Well into the twentieth century, Tennessee wildlife and game officials maintained surveys of coyotes, wolves, feral dogs, and their offspring.³² This brings us to a third North Carolina reference.

Like the previously discussed Moravian *Records*, this last incident did not specially relate to wolves, but served to defend wolves. Feral dogs have often been the source of livestock or deer kills in the eighteenth and nineteenth centuries, but in the heyday of wolf extermination (1930s/40s) in western United States the wolf was always publicly blamed. Barry Lopez cited an example of a cattle rancher in North Dakota “who admitted one day he didn’t really know how to tell a coyote from a wolf but he was pretty sure it was wolves that were running his horses.” The rancher later discovered it was his own dog and two wild Irish setters.³³

Western North Carolina rancher Tom Alexander, Sr. wrote in his memoirs about semi-wild dogs that overran his second Cataloochee ranch in the 1930s and 1940s. Alexander stated that the dog owners seldom fed their own animals, and that killing the dogs to protect his stock would lead to community conflict. Alexander stated: “On many

³¹ “Unstoppable: Man hasn’t found a way to halt coyote’s growth,” *The Knoxville (Tennessee) News-Sentinel*, 13 March 1988, C13.

³² Correspondence between the park naturalist and a Knoxville, TN resident (1948-1950) located in general vertical files (titled: *Canis rufus* – Red Wolf) at Great Smoky Mountains National Park, Gatlinburg, TN indicate that strange “Wolf Things” and canid hybrids were attacking sheep throughout state, some reportedly black in color. Notes from Remington Kellogg, Curator, Division of Mammals, Smithsonian National Museum, diagnosed the canids as hybrids between dogs and coyotes. See also: Harry Snyder, “E-T ‘Wolf’ Revealed Plain Mongrel Dog,” *Knoxville (Tennessee) Journal*, 5 March 1948; Vincent Schultz, “Status of the Coyote and Related Forms in Tennessee,” *Journal of the Tennessee Academy of Science* 30, no. 1 (January 1955): 44-46.

³³ Lopez, *Of Wolves and Men*, 150, 173 and 197.

nights we would hear the cries of panicky sheep on the hillside and go out to find many slaughtered, apparently out of sheer fun, by packs of dogs. One year I lost forty-five sheep to dogs alone.”³⁴ Alexander eventually abandoned raising sheep because of predation by dogs and bears that lived in nearby Great Smoky Mountains National Park. Judging from Alexander’s account, dog owners were not held responsible for the actions of their canid-property. Why the human condition permitted elimination of wolves with legislation, but did not seek to control the ownership of domestic dogs remains unresolved. Unlike wolves, domestic dogs served economic utility while serving humans, and earned their keep as hunting hounds or herding dogs. Wild wolves, on the other hand, did not fit the domestic mold in anyway. Rather, they lived freely, perhaps much to the envy of men and women shackled to civilization. Domestic dogs have always been ‘man’s best friend’ because of the unwavering service they provided.

Between the colonial and post-Civil War periods, North Carolinians legally persecuted wolves. Travelers, explorers, and settlers observed the wolf as a howling creature that recoiled in fear when approached by humans. German immigrants in Georgia and North Carolina generally feared wolves because of the economic repercussions that resulted from livestock depredations. The public acts and laws of North Carolina from 1715 to 1893 targeted wolves among other predators as a method to protect agricultural interests. The big bad wolf, known through children’s literature to huff and puff or eat grandmothers, did not appear with regularity or force in the records of colonial or early America. Only Georgia’s Salzburger immigrants depicted wolves as

³⁴ Tom Alexander, *Mountain Fever*, ed. by Thomas W. Alexander, Jr. and Jane D. Alexander (Asheville, NC: Bright Mountain Books, 1995), 100 and 129.

overly aggressive. The Moravians documented one wolf attack upon a fellow villager. John James Audubon documented one potential, yet highly unlikely, story of wolves that preyed upon humans.

Perhaps the Salzburger documents received heavy editing in Germany by an editor who wanted to spice the plight of the American immigrants and dramatize life on the frontier. Maybe the Moravians mistook semi-, wild-, or rabid dogs for wolves. Does our lack of documentation about John James Audubon's story tell us that nobody cared to record the legitimate story of two slaves?

New interpretations of dogs as agents in eighteenth and nineteenth century history will change the human perspective of wolves and their activities in the twentieth century. The idea that domestic dogs, defined as good animals because of their functional service as hunters, workers, and companions, contributed to the problems of agricultural life remains overlooked. These good animals also became bad dogs. Dogs preyed upon livestock and attacked humans; the latter recorded with more detail than alleged wolf predation upon humans in the Moravian records. And like wolves, when dogs turned bad they lost their rights, and were killed for utilitarian reasons and to prevent the spread of rabies.

The term utilitarian took on a new definition during the Gilded Age of American industrial expansion and natural resource extraction. During the last two decades of the nineteenth century the Progressive Era ushered a new land ethic among Americans. The debate between conservation and preservation took hold when the environment that wolves and bison thrived in began to visibly disappear. Over the past decades, historians

offered different interpretations of how the Progressive movement's "gospel of efficiency" contributed to the conservation and preservation movements.³⁵ The recent scholarship of historian Paul Sutter has suggested that this traditional interpretation represented an oversimplification of social trends, particularly those between the Great War and the Good War. A confused relationship between modernization, conservation, preservation, and wilderness protection resulted.³⁶

Historians Thomas Dunlap and Andrew C. Isenberg illustrated that the systematic destruction of North America's buffalo herds at the hands of Indians and Euro-Americans resulted in a changed landscape and new consciousness of wildlife.³⁷ For Dunlap, wildlife protection evolved out of a need to conserve good wildlife like the buffalo and eliminate bad wildlife such as wolves. But, according to Dunlap, this relationship cannot be interpreted without understanding the role that scientific inquiry played. Isenberg connected America's shrinking frontier as defined by Fredrick Jackson Turner and the 1890 United States Census, with urban men's concerns about masculinity in a modern

³⁵ J. Leonard Bates, "Fulfilling American Democracy: The Conservation Movement, 1907 to 1921," *The Mississippi Valley Historical Review* 44, Issue 1 (June 1957): 29-57; Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Cambridge, MA: Harvard University Press, 1959); Elmo Richardson, *The Politics of Conservation: Crusades and Controversies, 1897-1913* (Berkeley: University of California Press, 1962); Roderick Nash, *Wilderness in the American Mind*, 3rd ed. (New Haven, CT: Yale University Press, 1982); Carolyn Merchant, "Women of the Progressive Conservation Movement: 1900-1916," *Environmental Review* 8 (Spring 1984): 57-85; Donald Worster, *Nature's Economy: A History of Ecological Ideas*, 2nd ed. (Cambridge, UK: Cambridge University Press, 1994).

³⁶ Paul Sutter, *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement* (Seattle: University of Washington Press, 2002).

³⁷ Thomas Dunlap, *Saving America's Wildlife: Ecology and the American Mind, 1850-1990* (Princeton, NJ: Princeton University Press, 1988); Andrew C. Isenberg, *The Destruction of the Bison: An Environmental History, 1750-1920* (Cambridge: Cambridge University Press, 2000), 166.

and civilized society. The proponents of buffalo preservation feared that the loss of the buffalo wilds threatened an American culture of masculinity and values.

Action to save good wildlife like ducks, deer, and fox, shifted to predators in the 1920s. The virtues of the utilitarian ethic and masculinity were soon replaced by science, ecology and federal wildlife management policies in the early twentieth century. Popular intellectual personalities after the Second World War, Aldo Leopold and Rachel Carson became names to associate with ecological principals. Others, such as wild canid biologists Howard McCarley and Ronald M. Nowak, were not. However, the collective legacy and influence of ecologists and biologists did help save a particular species of wolf. The conflicts between wolves and humans persisted after the turn of century, and after 1970 one species, *Canis rufus* received unprecedented attention.

¹ Aldo Leopold, "Thinking Like a Mountain," *A Sand County Sketches*, ed. George R. Milner (New York: Oxford University Press, 1949), 101. Leopold's essay was first published in *The New Yorker* in 1949.

Chapter Four

"Top Priority": Spending to Save the Red Wolf, 1965-2000

"In those days we had never heard of passing up a chance to kill a wolf...When our rifles were empty, the old wolf was down...We reached the old wolf in time to watch a fierce green fire dying in her eyes."¹

Professional forester and wildlife game management authority Aldo Leopold influenced a generation of ecologists, public land managers and environmental enthusiasts between the World Wars. Leopold included this memory of a wolf he watched die in his essay "Thinking Like a Mountain." This recollection of his early days working for the United States Forest Service in Arizona and New Mexico illustrated 'the art of the possible' for the nation's environmental ethic and direction after 1920. The modern environmental movement did not grow out of the classic conservation and preservation debate, but out of the complex and deeply rooted history of sportsmen, nature writers, animal rights activists, scientists, and advocates for a less modern world.

Leopold best exemplified the transformation from scientific management of natural resources and predator control, to ecological advocacy and promotion of ethical land use. In "Thinking Like a Mountain," Leopold admitted he was young "and full of trigger-itch" when he shot the wolf that changed his life. He thought that "because fewer

¹ Aldo Leopold, "Thinking Like A Mountain," in *A Sand County Almanac and Sketches Here and There*, with an introduction by Robert Finch (New York: Oxford University Press, 1949; reprint, 1987), 130. "Thinking Like a Mountain" was written April 1, 1944.

wolves meant more deer, that no wolves would mean hunters' paradise." The waning light in the wolf's eyes sparked Leopold's journey to unlock the interconnected roles of species, of American values, and a landscape's opinion.²

The change from controlling predators within a given environment like North Carolina, to valuing their ecological and genetic diversity can be set against a national backdrop. This national experience is no less complicated than earlier human and animal relationships. Antebellum sportsmen, the depletion of natural resources to supply market demands, the Progressive era, the animal rights movement, and women's conservation organizations all contributed to saving species in the twentieth century. Without the intervention of the federal government in the nineteenth century or the scientific and technological advances of the twentieth century, saving wildlife on a national level could not have occurred.³

The influence of the gospel of efficiency, technology and scientific management as applied to natural resource extraction was felt outside the realms of water, soil and timber management. Between the World Wars professional ecologists emerged

² For full analysis of Leopold's ecological and intellectual transformations see Susan L. Flader, *Thinking Like a Mountain: Aldo Leopold and the Evolution of an Ecological Attitude toward Deer, Wolves and Forests* (University of Missouri Press, 1974. Reprinted Madison: University of Wisconsin Press, 1994); Paul Sutter, *Driven Wild: How the Fight Against Automobiles Launched the Modern Wilderness Movement* (Seattle: University of Washington Press, 2002).

³ For insight into these relationships between humans and the environment see the following: Samuel P. Hays, *Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, 1890-1920* (Cambridge, MA: Harvard University Press, 1959); Carolyn Merchant, "Women of the Progressive Conservation Movement: 1900-1916," *Environmental Review* 8 (Spring 1984): 57-85; Lisa Mighetto, *Wild Animals and American Environmental Ethics* (Tucson: University of Arizona Press, 1991); John F. Reiger, *American Sportsmen and the Origins of Conservation*, 3rd ed., Revised and Expanded (Corvallis, OR: Oregon State University Press, 2001); William Elliot, *Carolina Sports by Land and Water, Including Incidents of Devil Fishing, Wild-Cat, Deer, and Bear Hunting, etc.* (Reprint Greenwood, SC: Atlantic Press, 1977).

alongside specialized natural resource managers and academics. Aldo Leopold was a professional forester by training who developed the basis for modern wildlife management curriculum; he also wrote two of the most influential ecological and environmental manifestos on ecology, *A Sand County Almanac* and *The Land Ethic*.

Leopold understood that wildlife management was necessary for ecosystem health. After 1915, and throughout Leopold's career, the control of less desirable or undesirable animals had become a major aspect of federal programs. Based on his youthful experiences, Leopold recognized in his later years that the scales within a particular ecosystem could be tipped too far in any direction by human action or inaction. With no predators to cull animals such as deer, wild game populations exploded, and soon outstripped natural food sources resulting in sick herds. The first scenario played out on the Grand Canyon's North Rim in 1920s, and served as a textbook example that challenged traditional predator and deer management. Leopold and other wildlife biologists formulated their game management opinions based upon this and one other big event. Predator control led to a localized explosion of rodent populations in Kern County, California. This incident also added to biologists' conclusions that humans were capable of mismanagement. In the aftermath of these events, managers and scientists like Leopold accepted that humans did indeed affect ecosystems and could do so irreparably if particular species were hunted to extinction.⁴

⁴ Thomas Dunlap, *Saving America's Wildlife: Ecology and the American Mind, 1850-1990* (Princeton, NJ: Princeton University Press, 1988), 52-53 and 65-70; Donald Worster, *Nature's Economy: A History of Ecological Ideas*, 2nd ed. (Cambridge, UK: Cambridge University Press, 1994), 192; Roderick Nash, *Wilderness and the American Mind*, 3rd ed. (New Haven, CT: Yale University Press, 1982), 188, 186.

Red wolves (*Canis rufus*) were eventually rescued and delivered to North Carolina in the 1980s based upon these ideas that predators had a place in the wild, and that their genetic diversity was important to overall ecosystem health. But before red wolves could be reintroduced anywhere they required identification, protection, and a healthy habitat. In the 1960s, red wolves existed only in isolated pockets of Texas, Louisiana, and Arkansas. The story of saving the red wolf began in these states. The red wolf story is also one of dedicated biologists concerned with maintaining a species' genetic diversity, habitat preservation, and promoting conservation of unique resources.

At other times, the tale of the red wolf takes on a life of its own. As a historian, I learned a new vocabulary to understand the scientific and government reports to comprehend the devotion, and at times criticism, of individuals involved in an unprecedented effort to save a single mammalian species in a small part of North America. These often-technical and official documents left federal biologists in two-dimensional form.

Thankfully, the interpretations of the nature writers always complimented that of the technocrats. In order to understand anything, we must break it down to a manageable level. Creative writers turn all the human actors in the red wolf story into human beings. This creative element could never substitute for the actual voice of wolves, which are not accessible, but it does offer perspective. The larger story of the wolf in America remains complex, and the image of the wolf in America continues to transform. Characterized by biologists, humanitarians, agriculturalists, environmentalists, and politicians, any idea or definition of the wolf remains a complex social construct.

Central Texas wildlife biologist Dr. Howard McCarley is credited with the first studies that demonstrated red wolves were becoming increasingly scarce in the middle south by 1962.⁵ At the time three subspecies of *Canis rufus* were recognized, but only one appeared to exist in the wild. Two subspecies of the red wolf were presumed extinct. The first was *Canis rufus floridanus* (changed from *Canis rufus niger*). *Canis rufus rufus*, found as far west as central Oklahoma and named by John James Audubon and John Bachman (1851) was the second. The species inherited the name “red wolf” based on this latter observation of the “Red Texan Wolf.”

McCarley noted that the third subspecies remained in isolated areas between, particularly in southwestern Louisiana and along the northeastern Texas Gulf Coast. In his opinion, this last pocket of red wolves, *Canis rufus gregoryi*, was in danger of disappearing for two reasons. Like many other environmental cases, the wolves were losing habitat due to human policy decisions and economic development. Twentieth century Texas ranchers and eighteenth century Moravians from North Carolina shared the same concerns of economic protectionism for livestock.

Other human factors also affected the wolves, including a federal predator control program administered by the United States Fish and Wildlife Service (hereafter, the Service). In 1963 the Service reported killing 2,771 “red wolves,” many of which were likely misidentified. The trapping continued until 1966 to protect livestock interests,

⁵ Howard McCarley, “The Taxonomic Status of Wild *Canis* (*Canidae*) in the South Central United States,” *The Southwestern Naturalist* 7, Issue 3-4 (10 December 1962): 227-237.

eliminating wolves, coyotes, hybrids, and other predators.⁶ Land and economic development in the area contributed to the physical pressures on the wolves. Wetlands were drained and forest cover burned, unrestricted hunting of wild game reduced availability of natural prey for wolves, and industrial facilities altered land use patterns.⁷

The second danger was no less challenging to red wolves or humans who wanted to help. Coyotes began moving east through Oklahoma and south into Texas and Louisiana as described by McCarley. When researchers recognized the red wolves' "critical status," Dr. Douglass H. Pimlott and Paul W. Joslin of the University of Toronto initiated specific research into the red wolf beginning in 1964. Financed by the World Wildlife Fund, these scientists located red wolf populations in Louisiana, Arkansas, and Texas.⁸ They estimated that fewer than 150 individual red wolves remained in the wild, and their research sparked increased interest in *Canis rufus*.⁹ That same year, William Elder wrote to Stewart Udall, the Secretary of the Interior and the bureaucratic trunk from which the Service branches. Elder, a zoologist at the University of Missouri, was

⁶ Ronald M. Nowak, "Report on the Red Wolf," *Defenders of Wildlife News* 45, Issue 1 (January-March, 1970): 82-86, 88-94, see 85; Ronald M. Nowak, "The Mysterious Wolf of the South," *Natural History: The Journal of the American Museum of Natural History* 81, no. 1 (January 1972): 50-53, 74-77, see page 75-6.

⁷ James Harlan Shaw, "Ecology, Behavior, and Systematics of the red wolf (*Canis rufus*)" (Ph.D. diss., Yale University, 1975), 10; Nowak, "The Mysterious Wolf of the South," 77.

⁸ Ronald M. Nowak, "The Red Wolf in Louisiana," *Defenders of Wildlife News*, 42, Issue 1 (January-March 1967): 60-70, see page 67.

⁹ Nowak, "Report on the Red Wolf," 89-90.

concerned that red wolves had not been seen in his state for twenty years. His note expressed fear that the species was “in a precarious state in other parts of its range.”¹⁰

The quest to save the red wolf should be remembered within context of the brewing social concerns of the era. Not unlike other eras, the United States government faced uncertain times in the 1960s: the Vietnam War, the Civil Rights Movement, and the War on Poverty. That so much environmental legislation passed during this decade remains amazing. The Clean Air Act (1963), the Wilderness Act (1964), the National Trails System Act (1968), the Wild and Scenic Rivers Act (1968), and the National Environmental Protection Act (1969) represented a growing attitude among environmentalists, biologists, politicians, and the general public that the nation’s environment required federal management and protection for the public good.

Not yet at the forefront of the American mind, the movements that criticized the war, championed social equality, and questioned political legitimacy, also contributed to saving the red wolf. But the volatile and energetic social, political and economic contexts also explain the circuitous plan to rescue the Texas red wolf from extinction and deliver it to relative safety in North Carolina. Full of a new sort of “trigger itch,” many professionally trained scientists had new ambitions for wildlife. No longer spending money to kill predators and vermin, the federal government was on the verge of spending to save red wolves.

After the 1964 observations of academic scientists Dr. Howard McCarley, Dr. Douglass H. Pimlott, and Paul W. Joslin, the race to gather more information about red

¹⁰ Jan DeBlieu, *Meant to Be Wild: The Struggle to Save Endangered Species Through Captive Breeding* (Golden, CO: Fulcrum Press, 1991), 32-33.

wolves began. To investigate the situation, the United States Fish and Wildlife Service enlisted federal biologist John L. Paradiso to examine numerous canid skulls as McCarley had, but from a wider geographical area. Many of the skulls had been collected during federal predator control operations in Texas and Louisiana. This collection suggested that 'pure' red wolves still existed in those areas and that no hybridization had yet occurred. Like Pimlott and Joslin, Paradiso suggested that the true *Canis rufus* remained only in portions of Louisiana and Texas. Based on his findings and a "bleak" outlook for the red wolf, the Service placed *Canis rufus* on an internal rare and endangered species list in January 1965, and again listed the animal in 1967 under the limited provisions of the Endangered Species Preservation Act of 1966. This toothless Act only provided for protection of endangered species "where practical" through the purchase of land or interagency cooperation.¹¹

Ronald M. Nowak of the Museum of Natural History, University of Kansas, joined in the flood of research directed towards classifying and defining the taxonomic status of *Canis rufus*. He became one of many red wolf champions, and was previously responsible for a reclassification of North American *Canis* as a graduate student. His research was published in scientific journals, environmental periodicals, and museum magazines, reaching a wide range of readers. Nowak, building upon the research of other biologists, declared that the hybrid swarm of canids represented a major danger to the red

¹¹ Ronald M. Nowak, "The Red Wolf in Louisiana," 67; Dunlap, *Saving America's Wildlife*, 144-145, 171; United States Fish and Wildlife Service, "Historic Time Line for the Endangered Red Wolf," *Endangered Red Wolves* pamphlet (October 1997); Brian Czech and Paul R. Krausman, *The Endangered Species Act: History, Conservation Biology, and Public Policy* (Baltimore, MD: The Johns Hopkins University Press, 2001), 21-22; Stanford Environmental Law Society, *The Endangered Species Act* (Stanford, CA: Stanford University Press, 2001), 18-19; Richard Littell, *Endangered and Other Protected Species: Federal Law and Regulation* (Washington, DC: The Bureau of National Affairs, 1992), 8-10.

wolf. Nowak and Paradiso proposed that the canid species of central Texas actually represented a hybrid species separate from the individual red wolf and coyote species. Nowak concluded that these canids appeared “to have formed a separate population from those red wolves that still existed” and that “their movement to the east seems to have been a geographical expansion of” a new animal population.¹²

Federal predator control programs, particularly poison campaigns, historically came under fire by conservation minded scientists according to historian Thomas R. Dunlap.¹³ Aided by research that demonstrated the value of animals sharing an ecosystem, and the potential for collateral damage from federal poison campaigns, a 1964 Presidential advisory committee comprised of scientists, including Aldo Leopold’s son Starker, drastically altered the use of poison in predator control. In turn, the federal predator control operations in southeast Texas were successfully restricted in 1966. Under the terms of a limited Red Wolf Recovery Program, the Service sent John L. Steele, Jr. to research the range and habits of red wolves in March 1968.¹⁴ Steele completed his research in one year and was replaced by Texas wildlife officer Glynn Riley. Wolves continued to earn the disdain of ranchers in the region and faced increasing human pressures. Riley worked with local ranchers and farmers to trap wolves alive so he could determine if they were true red wolves; if they were, he sent them to Minnesota for genetic research, Point Defiance Zoo and Aquarium in Washington, or to

¹² Nowak, “Report on the Red Wolf,” 85-86.

¹³ Dunlap, *Saving America’s Wildlife*, 49 and 129.

¹⁴ Donald E. Moore and Roland Smith, “The red wolf as a model for carnivore re-introductions,” *The Zoological Society of London, Zoological Symposium* 62 (1990): 263-278, see 265.

Anahuac National Wildlife Refuge on the Texas coast until a permanent home could be found.¹⁵

From ongoing research, Nowak, Paradiso, and Steele all concluded that the red wolf in southeast Texas and southwest Louisiana was endangered of losing its biological uniqueness and genetic diversity. Biologists and environmentalists feared that such crossbreeding suggested “the red wolf may in the near future occur only as a population of natural hybrids...rather than as a true taxonomic entity,” noted the National Parks Association in 1966.¹⁶ The International Union for Conservation of Nature and Natural Resources added the red wolf to the *Red Data Book* of endangered wildlife. The American Society of Mammalogists expressed concern over government trapping in areas where the endangered species might still exist, and in 1969 the organization “passed a resolution calling for the intensive field study of the species.”¹⁷

Nowak and the handful of others that had conducted research agreed that the red wolf could be saved only through active management. The Point Defiance Zoo and Aquarium in Tacoma, Washington constructed holding pens in 1970 and began to solicit captured red wolves, such as those trapped by Glynn Riley.¹⁸ That same year, in an article for *Defenders of Wildlife News* magazine, Nowak’s “Report on the Red Wolf” claimed that the preservation of the red wolf depended on how much money and effort

¹⁵ Jan DeBlieu, *Meant to Be Wild*, 34-35.

¹⁶ Richard J. Aulerich, “The Wolf,” *National Parks Magazine* 40, no. 230 (November 1966): 11-13, see page 13.

¹⁷ Nowak, “Report on the Red Wolf,” 86.

¹⁸ DeBlieu, *Meant to Be Wild*, 37; Moore and Smith, “The red wolf as a model for carnivore re-introductions,” 266.

could be devoted to the protection of the red wolf. In 1970 “no refuges have been provided for it, no laws protect it, and little money had been spent to help it.” The toothless Endangered Species Conservation Act (1969) was not helping endangered species such as the red wolf. Nowak proclaimed, “The time has come for a top priority effort to save this unique American species.”¹⁹

Species survival depended upon the protection of habitat that was rapidly disappearing and faced increased fragmentation. State agencies could do little, and only federal agencies could protect both species and habitat. Texas game officials continued to work with local ranchers to protect livestock and live-trap wild canids to determine the range, habitat, and biological vitality of remaining red wolves in seven counties.²⁰

Scientists had proven that the red wolf was declining within its historic southern range based on laboratory studies and skull measurements. What they did not know was how the red wolf lived within its home range. To fill this void James Harlan Shaw studied the ecology and behavior of red wolves in Texas’ Gulf Coast Chambers County for his Yale University dissertation. Between 1971 and 1975 Shaw trapped canids and placed radio collars around their necks in order to track the animals’ movements. He observed their travel patterns, eating habits, and social interactions. Of significant finding for the ranchers, the predator-phobic public, and wildlife biologists, Shaw determined that red wolves rarely preyed on livestock when natural prey was abundant. To summarize Shaw, the gray wolf is generally a big game predator, hunting animals

¹⁹ Nowak, “Report on the Red Wolf,” 93.

²⁰ Nowak, “The Mysterious Wolf of the South,” 76-77.

larger than itself, such as elk. The Texas red wolf, in contrast, inhabited “a completely different feeding niche, selecting prey smaller than itself.” Despite the availability of domestic stock on farmland in Shaw’s study area, the Texas wolves generally favored rabbits over deer and mice over cattle.²¹

During Shaw’s research President Richard Nixon, then facing the Watergate investigation, signed the Endangered Species Act in 1973. Required by law to create an official list of endangered and threatened species, the Secretary of the Interior and the Service immediately declared the red wolf endangered. In January of 1975 an official Red Wolf Recovery Program was endorsed.²² One year later Nowak stated that the red wolf was the most endangered species in America; more threatened than the black-footed ferret, the grizzly bear or the manatee due to habitat loss. An article in the official magazine of the non-profit National Parks and Conservation Association, founded in 1919 by Steven Mather of the National Park Service, explained the history, habits, and status of red wolves to Association members.²³ Nowak carefully explained the processes that caused the decline of the red wolf, and specifically detailed the process of red-wolf and coyote hybridization. Although survival depended upon securing a suitable habitat that was becoming increasingly rare in Texas, the federal government was moving slowly to protect and save the red wolf.

²¹ Shaw, “Ecology, Behavior, and Systematics of the red wolf (*Canis rufus*),” 69-71.

²² United States Fish and Wildlife Service, *Red Wolf Recovery Plan* (Atlanta, GA: United States Fish and Wildlife Service, 1989, revised 1990), 11. Hereafter *Red Wolf Recovery Plan*.

²³ Ronald M. Nowak, “Red Wolf: Our Most Endangered Mammal,” *National Parks & Conservation Magazine* 48 (August 1974): 9-12.

Within two years of the Endangered Species Act, the Red Wolf Recovery Program had established a certified captive breeding program at the Point Defiance Zoo, which was already housing suspected red wolves. In 1974 federal and academic scientists Curtis Carley, Nowak, and Don and Donna Shaefer established the criteria that constituted a pure, or real red wolf. These researchers “calculated a set of minimum measurements for the brain-volume/skull-size ratio of true red wolves.” This procedure, which involved x-raying skulls, allowed captured canids to be tested for their purity without having to destroy them. Previously, purity had been determined by post-mortem skull measurements. Other methods of identification involved physical and morphological characteristics such as weight, shoulder height, and ear lengths. However, such hard lined statistical analysis and other tests actually “thinned” the gene pool in the opinion of critics: any canids that wavered from the parameters were not considered pure wolves and were killed.²⁴

The Recovery Program had two major goals. The Service wanted to first preserve the species within its home range, and second, establish a captive breeding program to build a healthy population of wolves. However, by 1975 the Red Wolf Recovery Team concluded that the red wolf-coyote hybrid-swarm’s eastward track could not be contained. The red wolf could not be preserved as a wild species. The only hope of saving the unique genetic characteristics of the red wolf lay in the captive breeding aspect of the program. With Service approval, the team agreed to let the animal go extinct in the wild so as to focus upon the captive breeding program while also searching for suitable

²⁴ DeBlieu, *Meant to Be Wild*, 41-42; *Red Wolf Recovery Plan*, 11.

habitat and new reintroduction sites. In 1980 the red wolf was declared extinct in the wild.²⁵

Between fall 1973 and July 1980, more than 400 wild canids were captured and examined to determine their taxonomic status. The majority of these animals were caught after 1975 as the Service raced to find pure Texas and Louisiana red wolves threatened by the hybrid swarm. Only forty-three of the animals housed at the Point Defiance captive breeding facility were declared red wolf candidates. The animals were allowed to breed to determine the purity of the animal's species. Researchers categorized the canids' purity based upon the characteristics of a pair's offspring. Some canids were bred at least twice before a final decision was made. In the end only fifteen canids were declared *Canis rufus*. Those animals that did not make the grade throughout the whole selection process were removed from the program and typically euthanized. The remaining stock of fifteen wolves was used to refurbish the current population of red wolves in captivity and in the wild.²⁶

Before all the red wolves were removed from the wild the Service began exploring potential reintroduction sites for captured canids. In 1976 and 1978 the Service translocated, or moved, wild red wolves to two islands in Cape Romain National Wildlife Refuge, South Carolina. These experimental reintroductions were successful and proved that translocated wolves could adapt to a new coastal environment and procure food. However, the island propagation projects also illustrated that the wolves required more

²⁵ DeBlieu, *Meant to Be Wild*, 43.

²⁶ *Red Wolf Recovery Plan*, 12; DeBlieu, *Meant to Be Wild*, 41-43.

territory than the islands provided. During the experimental releases, the wolves swam to other islands and even to the mainland where they were re-captured.²⁷

These experimental releases demonstrated that captured wolves that had been temporarily housed in captive facilities could be successfully reintroduced into the wild. The Recovery Team reevaluated its goals after saving the species in a captive breeding program. The next steps involved reintroducing and maintaining three healthy, wild populations within the wolf's home range. With the first objective satisfied, the second goal of maintaining a healthy population took some time. In the early 1980s the captive breeding program was in full swing. Red wolves were shifted to various locations across the nation to protect the remaining animals from parasitic or viral outbreaks.

In late 1978 the Service sought federal land in the southeast that could serve as a reintroduction site. The Tennessee Valley Authority suggested the use of the Land Between the Lakes for reintroduction. Situated in northwestern Tennessee on the Kentucky border, Land Between the Lakes was a popular area for hunting. Local hunters feared that they would lose hunting rights if an endangered species was introduced, while others generally feared the release of wolves into their communities. Environmental groups also grew concerned that red wolves might not receive the full protection of the Endangered Species Act. Given the dissenting opinions and the fact that the Service had not allocated enough time to work with and educate local officials and the public, the Kentucky and Tennessee state wildlife agencies rejected the project in 1984.²⁸

²⁷ *Red Wolf Recovery Plan*, 13.

²⁸ *Ibid.*, 14.

Soon after the proposed reintroduction of red wolves to Land Between the Lakes disintegrated, the Service acquired the property to establish Alligator River National Wildlife Refuge in eastern North Carolina in March 1984. The Nature Conservancy had worked with Prudential Insurance Company to obtain 120,000 acres of land in Dare and Tyrrell Counties. Bounded by water on three sides, Dare County did not host any livestock, and offered a variety of natural prey. Warren Parker, Red Wolf Recovery Coordinator, thought the site was perfect.

With red wolves in captivity and a successful breeding program achieved within ten years, the Service may have appeared rushed to get wolves back into the wild. However, the Recovery Team wanted to reinsert the wolves back into the wild as soon as possible so the animals would not lose their 'wild' character. Successful reintroductions that produced wild-born offspring, despite repeated human contact, would signal a successful recovery. The lessons of the Tennessee and Kentucky failure were applied to the proposed reintroduction of red wolves in North Carolina. A massive public relations and education campaign insured the success of program. Congressional representatives, state and local officials, the general public, and national environmental organizations were "thoroughly briefed" in private meetings and public forums.²⁹

However, the residents of Dare and surrounding counties, like those of Tennessee and Kentucky, were skeptical. They were concerned that the release of red wolves on newly designated federal land would affect their historic uses of the Alligator River landscape. Hunters in particular were concerned they would lose their previous rights to

²⁹ Ibid., 15.

hunt deer with dogs. To assuage local concerns hunting was not prohibited, but hunting was curtailed briefly during the historic 1987 release. Most importantly, red wolves were declared experimental and non-essential.

This designation meant that traditional uses of the Alligator River landscape would not be prohibited, but might incur minimal restrictions. As the program developed, and in the face of political and legal challenges, the Service authorized that red wolves could be shot in the event of imminent personal harm or property damage, and legitimate accidental shooting would not be prosecuted as long as the incident was immediately reported. This designation also allowed Service personnel to capture red wolves for the purpose of management. Red wolves could be taken (alive or dead) for various purposes, such as administering drugs, affixing radio collars, and/or removing 'problem' animals.³⁰

Within two years eight captive-bred red wolves from Point Defiance were shipped to the Alligator River, and released into the wild in November 1987. Refuge personnel were very tense between the months of May and this November release. Prior to this release in Alligator River one wolf was unexpectedly determined to be pregnant, the unique and untested radio tracking and capture collars equipped with tranquilizing darts were not working, and the weather left the landscape more saturated than previously remembered. Refuge personnel were facing pressure from local hunters who had been shut out of the refuge during the summer months (and hunting season was set to begin in

³⁰ Warren Parker, *An Overview and Guide for "Experimental Population" Designations*, Red Wolf Management Series Technical Report No. 4 (Asheville, NC: United States Fish and Wildlife Service, April 1989).

October). The Service eventually released eight wolves despite the fact the darts in the collars did not really work as promised to the local community.

By spring 1988 the program continued to run into more snags: the radio telemetry and capture collars manufactured by 3M Corporation continued to malfunction, some wolves showed little fear of humans or cars, others traveled widely on public roads, and one left the refuge boundary in search of better habitat. The predators continued to contract diseases and experience ill health. On the good side, the animals clearly learned to hunt, travel, and breed in the wild. The pups did not always survive, but according to Alligator River biologist Mike Phillips, “at least the public has learned a lot about the problems involved with saving endangered species.”³¹

The first five years of the Alligator River project can be considered a success for the red wolves despite a high mortality rate. Of the forty-two wolves released, twenty-two died. All of the deaths but two were attributed to natural or accidental deaths, with causes ranging from parasitic disease to automobile accidents. Seven were returned to captivity for management reasons, such as wandering too far outside the management area. In more than one case red wolves left the refuge in search of better habitat or simply became too accustomed to human populations.³²

The Service continued to learn as well, and pushed the Red Wolf Recovery Team further to the Great Smoky Mountains National Park, with the first release of red wolves there in 1992. The Smokies program faced similar challenges and success like Alligator

³¹ DeBlieu, *Meant to Be Wild*, 81.

³² United States Fish and Wildlife Service, “Red Wolf Recovery Program: Five Year Summary, 1987-1992,” [on-line report]; Internet; available from <http://alligatorriver.fws.gov/fiveyr.html>; last accessed 28 March 2003.

River. Captive and wild-bred wolves adapted to the mountainous landscape, but also experienced difficulty with disease and traveled extensively outside of the Park's boundaries. In November of 1993 a single female wolf, born in the Park and soon to be named the Tellico Plains Wolf, wandered out of the park as far as Athens, TN, nearly fifty-linear miles from her release site in the Park. She killed no livestock or pets and did not draw any attention to herself while traveling outside the Park over the course of four months. This wolf demonstrated that wild-born red wolves could survive in the region, although her flight from the Park suggested that the mountain habitat was not conducive for red wolves. The Tellico Plains wolf and other reintroduced wolves who ventured onto private lands far from their release areas in the Park and at Alligator River, illustrated that the red wolf could "readapt to a terribly fragmented landscape and that, even in the presence of livestock, the wolf – an exemplary predator rather than a scavenger – preferred wild prey."³³

The Red Wolf Recovery effort in the Great Smoky Mountains National Park ultimately did not work. According to the *Federal Register*, the Park project was terminated for four reasons. The first two were not new challenges, as canid diseases and parasites had plagued the program since its inception. The third reason was significant in its implications for a predator: poor nutrition. However, this reason was related to the fourth and not totally unfamiliar problem. Coyotes once again competed with red wolves for food and territory, and raised alarm when they became friendly with a few of the red

³³ Christopher Camuto, *Another Country: Journeying Toward the Cherokee Mountains* (New York: Henry Holt, 1997), 213-16.

wolves. Thirty-seven red wolves had been released in the Park, and of those, twenty-six “were recaptured from or died outside the Park boundaries.”³⁴

The Great Smoky Mountains project served as an experimental project in many ways. There was hope that the wolves would chase the Park’s coyotes out of Cades Cove. The more bold aspect of the reintroduction was the intentional release of the wolves into a cove they would share with almost 500 head of cattle. The goal was to prove that wolves and livestock could co-exist. No adult cattle were attacked, and only “seven calves were presumed to be taken by wolves in the first fourteen months of the restoration.” Coyotes may have been responsible.³⁵

Only after winter blizzards and spring floods destroyed protective corrals did wolves become emboldened to take calves from the protective corrals, doing so at times in the rancher’s presence. Facing environmental pressures, the Cades Cove wolves preyed on livestock as they had in the Salzburger’s settlements in the 1730s. According to project manager and Service biologist Chris Lucash: “The wolves had learned to defeat the fences and [took] calves out of the corrals and pastures.” The stockowner, which operated his ranch in the Park under a special permit with the Park Service, was compensated well for the lost calves, generally receiving market value for a weaned cow. The problem wolves were removed from the Cove and the Recovery Program continued

³⁴ Camuto, *Another Country*, 242; “Notice of termination of reintroduction project,” *Federal Register* 63, no. 195 (Thursday, 8 October 1998), page 54152. See also United States Fish and Wildlife Service Press Release, “USFWS, National Park Service End Effort to Establish Endangered Red Wolves in Great Smoky Mountains National Park,” 8 October 1998 [online]; Internet; available from <http://southeast.fws.gov/news/1998/r98-091a.html>; last accessed 28 March 2003.

³⁵ Camuto, *Another Country*, 245; “Experimental Release of red Wolves into Great Smoky Mountain National Park,” general vertical file – *Canis rufus*, Red Wolf, Great Smoky Mountains National Park Archives, Gatlinburg, TN, 1992.

for another four years. Wolves could live alongside livestock, but once they began to prey upon domestic stock they “were lost,” according to Lucash.³⁶

Today, red wolves still range over eastern North Carolina in Alligator River National Wildlife Refuge and on southern coastal island Refuges in states like South Carolina. The project remains one that faces challenges, including legal and biological dilemmas. In 1990 an eastern North Carolina resident shot and killed a red wolf on his private property. He pled guilty, preformed community service, and paid a fine in compliance with the Endangered Species Act. However, the North Carolina legislature passed legislation in a sign of support for its constituents in non-compliance with the federal Endangered Species Act, and permitted landowners to kill “problem” red wolves on private property.³⁷

The Service responded by relaxing the right for private citizens to kill, or “take” wolves that were observed in the act of killing livestock. Despite this, local citizens sued the Service and Secretary of the Interior in 1997, citing that the federal government did not have the legal authority to protect endangered species on private land. The United States District Court however, declared that the federal government was entitled to protect endangered species on private land. This decision was appealed to the United States Court of Appeals where the District Court’s decision was affirmed. When

³⁶ Camuto, *Another Country*, 245 and 247.

³⁷ North Carolina Session Laws, 1994, Chapter 635; amended in North Carolina Session Laws, 1995, Chapter 83.

approached, the United States Supreme Court, without further comment, declined to hear the case in 2001.³⁸

Despite these legal challenges, the Red Wolf Recovery Program continues to formulate a base of knowledge that will contribute to other ongoing and future reintroduction efforts of endangered wildlife worldwide. Some might characterize the red wolf program as highly invasive, technical, scientific, and far out of step with the intent of the Endangered Species Act. Wolves are tracked with radio collars, captured, treated with vaccines, were given birth control in the past, and artificially inseminated in captivity. Highly adaptive coyotes, first sighted in eastern North Carolina in the early 1980s, are once again pressing upon the wild red wolves. North Carolina Wildlife Resources Commission officers believe the invasive and exotic coyotes were imported illegally, "usually by houndsmen seeking additional sport."³⁹ As part of the new Red Wolf Management Plan some coyotes and red wolf-coyote hybrids have been sterilized to inhibit future hybridization, and have been radio-collared. In regions where reproduction is stymied, the Service hopes that red wolf family groups will push the infertile canids out of wolf ranges.

While all this human activity doesn't seem to be appropriate in the wild, and potentially illegal to the letter of the Endangered Species Act, an endangered animal without a habitat cannot survive. Critics argue that the red wolf program resembles the maintenance of a species in a wild zoo. However, the goal is to create a sustainable

³⁸ *Gibbs v. Babbitt*, No. 99-1218 (United States Court of Appeals, 4th Cir. 2000).

³⁹ Mark Taylor, "Coyotes Come to Carolina," *Wildlife in North Carolina* 51, no. 10 (October 1987): 22-25, see page 22.

population of red wolves in the wild that can withstand natural mortality rates in a seriously fragmented environment. Until that time, wild red wolves will be managed by humans who have historically re-created wild landscapes.

Scientists, the saviors of the red wolf, are also contributing to further confusion of how to define the red wolf. The debate of the biological and taxonomic status of the red wolf has further complicated the restoration of this species to the wild. According to Nowak:

The wolves of North America are under a severe new threat from an influential group; not the lumber companies, fur trappers, or stockmen, but the zoologists, or at least some among them who are keen to publish claims that wolf populations have hybridized with other species. These scientists are unwittingly playing into the hands of certain commercial interests, which will seize upon any suggestion that a species is no longer taxonomically valid, in order to argue that conservation efforts are not warranted and that the species and its habitat may be exploited.⁴⁰

This debate is not necessarily new, having been part of the discussion to save the red wolf since nearly the beginning of recovery.

However, the techniques and technology deployed to prove allegations that the red wolf is not a distinct species have changed from measuring skulls to nuclear DNA and other genetic tests. On two separate occasions, the American Sheep Industry Association and the National Wilderness Institute filed petitions to de-list the red wolf in 1991 and 1995 based on such genetic research that declared the red wolf was not a distinct species.⁴¹ According to Service biologist Ronald Refsnider, "Our scientific

⁴⁰ Ron Nowak, "Hybridization: The Double Edged Threat," *Canid News* 3 (1995) [on-line journal]; available from <http://www.canids.org/PUBLICAT/CNDNEWS3/hybridiz.htm>, last accessed: 28 March 2003.

⁴¹ Robert K. Wayne and John L. Gittleman, "The Problematic Red Wolf," *Scientific American* 273, no. 1 (July 1995): 36-39.

techniques have gotten way ahead of our public policy, and in a sense even ahead of our level of knowledge.”⁴² Should the red wolf prove to be a sub-species of the gray wolf or a hybrid of the gray wolf and the coyote, the red wolf would not be entitled to protection by, or the provisions of, the Endangered Species Act. Aside from genetic concerns, the historic range of red wolves continues to be debated.

Wolves clearly inhabited western North Carolina as the historical record has shown. The Cherokee identified wolves in their culture, and state bounties remained in place until almost 1900. But what species of wolf lived there? Archeological remains from Macon County show that the red wolf roamed the mountains.⁴³ But a recent excavation near Asheville at George Vanderbilt’s Biltmore Estate has unearthed gray wolf (*Canis lupus*) mandibles. Archeologists involved with the project theorize that the bones, fashioned into sacred objects, traveled to their resting place from Ohio and the upper Mid-West.⁴⁴ There is no denying that wolves lived in western North Carolina, but the debate over what species of wolf lived in the region remains undetermined.

⁴² Jan DeBlieu, “Could the Red Wolf Be A Mutt?”, *The New York Times Magazine* (14 June 1992): 30-31 and 42-46, see page 46.

⁴³ It is interesting to consider the link between the only archeological remains of *Canis rufus* in Macon County and the county’s historical lack of bounty legislation. Without bounties, particularly legislation that called for the destruction of the predator after payment, the discovery of remains may not be disconnected from North Carolina’s legislative history. See Chapter 3, page 91, note 14, as well as Illustration 6. North Carolina State University holds a *Canis rufus* maxillary fragment from Macon County, North Carolina, see: Ronald M. Nowak, “The Original Status of Wolves in Eastern North America,” *Southeastern Naturalist* 1, no. 2 (2002): 95-130, Appendix 1, page 129.

⁴⁴ “Biltmore Estate dig yields Indian cache,” CNN.com, 28 January 2003 [on-line news source]; available from <http://www.cnn.com/2003/TECH/science/01/28/ncarolina.mound.ap/>; Internet; accessed 10 February 2003; copy of article in author’s possession. Personal email correspondence with Appalachian State University zooarchaeologist Dr. Tom Whyte working on the archaeofaunal remains from Biltmore Estate. Other links between canids and Indian trade are also evident in eastern North Carolina. Consider a 1948 archeological dig in Bertie County that unearthed twenty-seven drilled animal teeth including eighteen gray wolf (*Canis lupus lycaon*) and three coyote (*Canis latrans*). Since the coyote was presumed

The red wolf has survived in eastern North Carolina because the red wolf has access to private land that is more conducive to survival. The land that Prudential could not develop economically, and then became public land, is not necessarily the best habitat for the red wolf. Given the experiences of the Smokies Tellico Plains Wolf and others in eastern North Carolina:

Red wolves can flourish in a wide variety of habitats and there is sufficient habitat available to meet the population objectives outlined in the Recovery Plan. Much of that habitat, however, is privately owned: landowner support is a requisite for recovery of the red wolf. The recovery of the species is not dependent on the setting aside of undisturbed habitat but rather on overcoming the political and logistical obstacles to human coexistence with wild wolves.⁴⁵

Wolves and coyotes can biologically survive in coexistence with human beings as these experiments have proven, and we don't need wilderness to make it happen.

In 1996 almost twenty private landowners had formalized agreements with the Service that provided 79,000 hectares to red wolves.⁴⁶ With access to wilderness - as defined by wilderness that does not administer grazing permits for example - the social problems associated with North Carolina's reintroduction program would not repeat themselves elsewhere. Problems will arise given particular circumstances, as earthly experience has demonstrated. However, the beauty of the red wolf reintroduction is the

not to be found east of the Appalachian Mountains until the twentieth century, these teeth must have been acquired by trade. See: David Beers Quinn, ed., *The Roanoke Voyages, 1584-1590*, Volume I ([London:] Hakluyt Society, 1955; reproduced by Nedeln, [The Principality of] Liechtenstein: Kraus Reprint Limited, 1967), 356, note 5.

⁴⁵ Mike Phillips, "Conserving the Red Wolf," *Canid News* 3 (1995) [on-line journal]; available from <http://www.canids.org/PUBLICAT/CNDNEWS3/consredw.htm>, last accessed 28 March 2003.

⁴⁶ Jennifer D. Gilbreath and Michael K. Phillips, "Red Wolves and Private Land," in *Defenders of Wildlife's Wolves of America Conference Held in Albany, NY, 14-16 November 1996*, compiled by Nina Fascione and Maria Cecil (Washington, DC: Defenders of Wildlife, 1996), 161-164.

fact that wildness can reside, literally, within human grasp if the social and cultural problems are mitigated.

As three studies have shown, humans have expressed interest in allowing wolves to live within their regions and communities. The first study, conducted in 1995 by North Carolina State University graduate student Kim Quintal, illustrated that a very slim majority of eastern North Carolina residents supported the red wolf recovery. Of 600 Beaufort, Dare, Hyde, Tyrell, and Washington County residents that participated in a telephone survey, almost 52 percent supported the reintroduction of red wolves. Most respondents demonstrated an awareness of the habits of red wolves, such as pack structure and eating habits. However, statistical opposition to red wolves in some counties mirrored statistical support for red wolves in other counties. Not all eastern North Carolina residents are eager to share their landscape with wolves.⁴⁷

The second survey, conducted by William E. Rosen of Cornell University in 1995, focused on both the eastern North Carolina and Great Smoky Mountains reintroduction sites. Just over 500 individuals were surveyed from North Carolina, Tennessee, all states immediately bordering these two, and Ohio. Rosen found that over 70 percent of all respondents favored the reintroduction of red wolves, only 22 percent thought animals exist for human utility, and 37 percent would be less likely to visit an

⁴⁷ North Carolina State University News Release, "NCSU: Most Residents Support Reintroduction of Wolves," 31 March 1995.

area if the “red wolf is removed from the wild.”⁴⁸

The final survey conducted by East Carolina University and Southern Illinois University found general support for the reintroduction as well. This person-to-person survey of sixty-eight individuals living in the vicinity of Alligator River illustrated that 76 percent of respondents would consider personally “contributing some amount” of money to reintroduction efforts. These respondents were willing to hypothetically donate money because of the “ecosystem value of the red wolf.”⁴⁹

Regardless of survey results, red wolves howl in North Carolina today. Thanks to concern from scientists, environmental organizations, and the dedication of land management personnel, the general public has accepted red wolves in North Carolina. The red wolf’s journey has not been easy, and the unique reintroduction of red wolves into the wild has encountered technical, legal, and scientific hurdles. The success of red wolf recovery is tied to public interest in Alligator River National Wildlife Refuge’s fifteen scheduled “Howling Safari Tours” last year. Without public acceptance and advocacy the restoration of an endangered predator could not happen. Today approximately one hundred wolves, including sixty-three with radio collars, range over approximately one-and-a-half million acres of public and private land, military installations and former farmland in Dare, Hyde, Tyrrell, and Washington Counties.

⁴⁸ William E. Rosen, “Red Wolf Recovery in Northeastern North Carolina and the Great Smoky Mountains National Park: Public Attitudes and Economic Impacts,” in *Defenders of Wildlife’s Wolves of America Conference Held in Albany, NY, 14-16 November 1996*, compiled by Nina Fascione and Maria Cecil (Washington, DC: Defenders of Wildlife, 1996), 172-177.

⁴⁹ William R. Mangun, John Nicholas Lucas, John C. Whitehead, and Jean C. Mangun, “Valuing Red Wolf Recovery Efforts at Alligator River NWR: Measuring Citizen Support,” in *Defenders of Wildlife’s Wolves of America Conference Held in Albany, NY, 14-16 November 1996*, compiled by Nina Fascione and Maria Cecil (Washington, DC: Defenders of Wildlife, 1996), 165-171.

Canis rufus is protected by the federal Endangered Species Act of 1973, but more directly by seven staff members at Alligator River, a unit of the Department of the Interior's United States Fish and Wildlife Service, and in thirty-three breeding facilities across the nation. A state that raised taxes to pay bounties on the scalps of wolves now contributes physical space and federal tax dollars to the reintroduction of red wolves in North Carolina.⁵⁰

The community, technical, legal, and scientific hurdles the Red Wolf Recovery Program has met over the past fifty years have been handled one by one. As a success story, the reintroduction of red wolves remains an example for other national and international reintroduction programs as the wild red wolf population continues to increase. Yet, the same science that has helped the red wolf also threatens the program. Ultimately the protection of species requires habitat, and the program has further illustrated that humans and wolves continue to compete for the same territory. This competition could be mitigated with a shift, already underway, in cultural perceptions of wolves. Without this continued shift and a pro-active recovery program, the fate of *Canis rufus* remains threatened.

⁵⁰ United States Fish and Wildlife Service, "Wild red wolf population in northeastern North Carolina," *Red Wolf News* 3, Issue 2 (4 December 2002), 1.

Epilogue

Late one night, not long ago I was driving south on US Highway 23/74, a divided four-lane thoroughfare, from 'urban' Asheville to my 'rural' university town. After passing through Balsam Gap, the numerical high point of the journey and entrance to the National Park Service's Blue Ridge Parkway, a coyote ran across the road. Dodging snow flurries and headlights, the canid galloped into an empty BP station parking lot. Jackson and Haywood Counties, like almost every region of the state have a resident coyote population.

If coyotes can live in a human-constructed environment, particularly one in an agricultural decline, what stops wolves from doing the same? Deer are relatively uncommon in western North Carolina, yet coyotes thrive. Red wolves need exactly the type of landscape, even if it is fragmented and occupied by the human force that has pushed the animal toward extinction. That red wolves do not require large holdings of public land speaks to the adaptability of the species, but also to our human construction of wilderness. If red wolves, such as the Tellico Plains wolf and others in eastern North Carolina, can live within close proximity to humans, what other threatened animals could survive in habitats that we encounter everyday?

There are differences between wildness and wilderness. Wildness resides in the bark of the trees outside our windows, along the creeks in our neighborhoods where fish

dart, and even on the medians of our highways where red-tailed hawks perch. These mini-ecosystems are in constant flux, but are still capable of maintaining wild characteristics. However, we do need politically defined Wilderness to maintain intact ecosystems and to save species that require un-fragmented territory. Wilderness also represents all the qualities of wildness – like wide-open spaces, remote summits, rare plants, and unique fauna in one place – that are worthy of protection. But we do not necessarily need Wilderness to maintain the wildness of ecosystems that we encounter everyday in our neighborhoods. The qualities of wildness can be preserved through conservation of public and private land. However, when humans choose to ignore, or are further alienated from the wildness in their everyday encounters with the world, the survival of all species and the habitat they require is threatened.¹

Our ideas of animals, wild and domestic, are constructed by physical, cultural, and intellectual experiences. Wolves appeared timid and ferocious in colonial eyes. Legislators defined wolves as economic liabilities, while some citizens turned wolves into commodities. Today wolves illustrate the dangers of habitat destruction, the influence of scientific research, and conflicts of interest over property rights. Dogs have been created no differently. These dependable canids resemble human incarnations to their owners, enjoying three course meals in high-rise apartments, sleeping in barns after

¹ For more on wildness and wilderness see: J. Baird Callicott and Michael P. Nelson, eds., *The Great New Wilderness Debate: An Expansive Collection of Writings Defining Wilderness from John Muir to Gary Snyder* (Athens: University of Georgia Press, 1998); William Cronon, "The Trouble With Wilderness, or Getting Back to the Wrong Nature," in *Uncommon Ground: Toward Reinventing Nature*, ed. by William Cronon (New York: W.W. Norton, 1995); Gregory H. Aplet, "Essay – On the Nature of Wildness: Exploring What Wilderness Really Protects," *Denver University Law Review* 76, no. 2 (1999): 347-367.

fox hunting, and everything in between.² Other unwanted domestic dogs, abandoned on the roadside, are left to form loose packs with other feral dogs across the nation.

The behavior of dogs continues to demonstrate that wolves and coyotes are not always guilty of livestock depredations. As in the past, according to North Carolina's Moravians and mountain resident Tom Alexander, dogs attack livestock. Recently in Buncombe County, North Carolina, where wolves were eliminated around 1900, three wild dogs eviscerated three cows. According to veteran Animal Control officials, the remains left by the dogs were the worst they had ever seen.³

The human relationship with wolves, and all canids for that matter, remains defined by complexity and continuity. The perception of the wolf has changed, but new definitions do not always insure clarity or understanding. The image and activities of the dog, on the other hand, have remained relatively constant regardless of the wolf's presence. The transformation that brought red wolves back is not complete, and the related intellectual conclusions remain in flux. The change that took place between 1965 and today is a tribute to scientific quantification, political action, and humanity. But while we honor these characteristics, they have also clouded the outcome. The red wolf is not a hero or a victim. Rather the red wolf is an example of the continuum of the human consciousness. Red wolves continue to run wild in eastern North Carolina, and I hope they continue to do so for the benefit of all other species, endangered, threatened, or neither.

² Angus Phillips, "A Love Story," *National Geographic* 201, no. 1 (January 2002): 12-31.

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Appendix A

Canis rufus Taxonomy

The question of the classification of species, is not a simple task. The debate over the status of the subspecies of red wolf (*Canis rufus*) remains a contentious issue. If the red wolf is a distinct species then the animal is covered under the provisions of the Endangered Species Act (ESA, 1973). However, if the red wolf were a hybrid between a now extinct and the western/coastal gray/umber wolf (*Canis lupus*) then the red wolf would not be a subspecies. Some **Appendices** of think the taxonomic issue is crucial for protecting the red wolf. Other scientists, who are advocates of the ESA, do not believe that the red wolf is a distinct species. They generally believe that if the red wolf is not a distinct species then the measures needed to protect other species are not being followed and the ESA is not being followed.

Red wolf taxonomy has been approached primarily from two directions. One is a "bottom up" approach: genetic testing and DNA analysis has revealed that the red wolf is much more like it once was. Nuclear DNA and mtDNA (mitochondrial DNA) have revealed that many full range gray genetic material from *Canis lupus* are, indicating a high hybridization (between the species) and backcrossing (between a hybrid and a pure wolf, for example). mtDNA can reveal how closely related species are. According to the mtDNA study of deceased specimens from Texas between 1914 and

Appendix A

Canis rufus Taxonomy

Taxonomy, or the classification of species, is not a simple task. The debate over the taxonomic status of the red wolf (*Canis rufus*) remains a contentious issue. If the red wolf is a distinct species then the animal is covered under the provisions of the Endangered Species Act (ESA, 1973). However, if the red wolf were a hybrid of coyote (*Canis latrans*) and the western/eastern gray/timber wolf (*Canis lupus*), then the red wolf would not receive protection. Some scientists do not think the taxonomic issue is central to protection of the red wolf. Other scientists, who are advocates of the ESA, do not believe the red wolf is a distinct species. They generally believe that if the red wolf is not a distinct species, then the resources needed to protect other species are not being allocated properly.

Red wolf taxonomy has been approached primarily from two directions. Considered the 'new' approach, genetic testing and DNA analysis has revealed that defining species is not as easy as it once was. Nuclear DNA and mtDNA (mitochondrial DNA) tests suggest that nearly all *canis* carry genetic material from *Canis latrans*, indicating previous hybridization (between the species) and backcrossing (between a hybrid and a gray wolf for example). MtDNA can reveal how closely related species are. According to one mtDNA study of deceased specimens from Texas between 1974 and

1976, coyote and gray wolf mtDNA differed by a marginal percentage. These researchers and others have determined that no unique or specific red wolf mtDNA was evident.¹

The 'old' approach of taxonomy has depended upon multivariate analysis of skulls. This school, which compares dental and cranial measurements among other factors, has affirmed the current red wolf taxonomic status. The most recent study, "The Original Status of Wolves in Eastern North America," demonstrates that the red wolf and its subspecies have ranged from Central Texas to New England, and from Florida to the Ohio River Valley. This study reinforces that the red wolf is a distinct species that ranged in the east, and illustrates that the predators' range was larger than originally expected. Red wolves have hybridized in the past with coyotes, "however, such hybridization generally was considered a modern phenomenon that contributed to the demise, not the origin, of the red wolf." Ronald M. Nowak's most recent research argues that the red wolf, currently maintained through a captive breeding program and management, is descended from the *Canis rufus rufus* subspecies of *Canis rufus*, not *Canis rufus gregoryi* as previously assumed.²

If the taxonomy is not sufficiently confusing, it is worth noting that the name red wolf is not exactly proper. *Canis rufus rufus*, found as far west as central Oklahoma was named by John James Audubon and John Bachman (1851). The species inherited the name "red wolf" based on their observation of the "Red Texan Wolf." They noted that

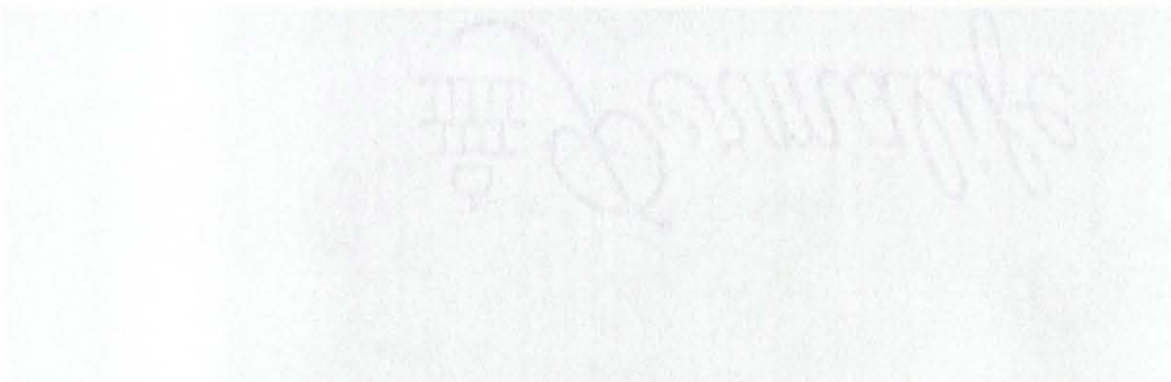
¹ Robert K. Wayne and John L. Gittleman, "The Problematic Red Wolf," *Scientific American* 273, no. 1 (1995): 36-39, see 36B;

² Ronald M. Nowak, "The Original Status of Wolves in Eastern North America," *Southeastern Naturalist* 1, no. 2 (2002): 95-130, see 98 and 121.

the "reddish shade predominated in Texas," but that "the wolves of different colors freely interbred."³

Appendix B

An Annotated Bibliography History of *Canis lupus*



³ Ronald M. Nowak, *North American Quaternary CANIS* (Lawrence: University of Kansas and the Museum of Natural History, 1979), 24.

Appendix B

An Abbreviated Taxonomic History of *Canis rufus*¹

Scientific name	Who Named the Species	Year
<i>Lupus niger</i>	William Bartram	1791
<i>Canis lupus</i> var. <i>Rufus</i>	John James Audubon and John Bachman	1851; Also known as the "Red Texan Wolf."
<i>Canis rufus</i>	Vernon Bailey	1905
<i>Canis floridanus</i>	Gerrit S. Miller, Jr.	1912
<i>Canis rufus gregoryi</i>	Edward A. Goldman	1937
<i>Canis rufus floridanus</i> , <i>Canis rufus gregoryi</i> , and <i>Canis rufus rufus</i> ,	Edward A. Goldman	1944

¹ For a complete taxonomic status of the *Canis rufus*, consult the following: Ronald M. Nowak, "The Original Status of Wolves in Eastern North America," *Southeastern Naturalist* 1, no. 2 (2002): 95-130, see 120-121. Ronald M. Nowak, *North American Quaternary CANIS* (Lawrence: University of Kansas and the Museum of Natural History, 1979), 85; E.A. Goldman, "Classification of wolves," in *The Wolves of North America*, Part II, eds. S.P. Young and E.A. Goldman (Washington, DC: American Wildlife Institute, 1944), 478-489.