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Defining an Agency: Animals, Fire, and the U.S. Forest Service

Ellen A. Ipsen

University of Montana, Missoula, ellen.ipsen@gmail.com

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“Defining an Agency: Animals, Fire and the USFS”

In the 1930s, the U.S. Forest Service (USFS) attempted to employ the world’s rapidly improving technologies and mechanical innovations towards fighting fires. The process was slow. When fires ravaged deep in uncivilized terrain, in 1932 the *Journal of Forestry* proclaimed, “for country of this degree of roughness, up to the present time, no power tool has been found which surpasses the horse and plow, or even competes with it.”ⁱ Rangers used horses and mules for transportation, scouting missions, and building trails and fire-lines — horses and mules could work harder and travel faster. At this time, the United States Forest Service represented a new government agency that initiated regulation of the resources which loggers, ranchers, and miners previously possessed unchecked access to. To many people, the creation of the USFS posed an unwelcome expansion of federal power in the West. This paper explores the role of animals in garnering public support of the USFS. Historically, animals played a significant role in the growth of the West and the public’s love and respect of stock and wildlife were utilized as tool to establish a federal agency.

The federal government established the Forest Service in 1905 under President Roosevelt. Through Teddy Roosevelt’s friendships and adventures, he developed a love of nature and wildlife. His desire to protect and conserve the depleting natural landscape of the West primarily manifested itself through his creation of National Parks

and the USFS. This was unpopular with people because they weren't used to federal reach. In an effort to sway public opinion, the USFS did two things. Firstly, the agency fought forest fires using animals, such as horses and pigeons. Horses provided transportation, a sense of uniformity, and labor while pigeons provided timely communication and reliability. These animals increased effectiveness in a time when they could capitalize on people's fear of fire.

Later, the Forest Service used animals, specifically Smokey Bear, to generate a public fire prevention education campaign. The public, particularly children, loved Smokey and all he represented. Smokey helped the public realize and care how their actions caused forest fires. Animals were universally respected and the agency understood them as a way to connect with the public. The Forest Service's use of animals in both active firefighting and later in a public engagement capacity successfully reduced the damage of forest fires. The Forest Service's use of horses, mules and pigeons fostered ranger uniformity and increased fire-fighting efficiency. Smokey garnered USFS nationwide visibility and created public engagement and awareness. Animals in the USFS gained the agency respect and recognition in order to create a lasting, reputable agency.

Many historians have chronicled the creation and evolution of the US Forest Service. The agency produced a lengthy history at the centennial. Books such as the agency's *The USDA Forest Service — The First Century* and Harold Steen's *The Forest Service — A History* cover the key players in creating the agency, crucial legislation that defined the agency and the impact of different Chief Foresters, and problems that arose along the way. Articles, such as Char Miller's "Crisis Management: Challenge and Controversy in Forest Service History" acknowledge the difficulty in establishing and

defining a huge federal agency. These sources do mention the existence of animal labor and they acknowledge the popularity of Smokey Bear. In comparison to other works, this paper analyzes how the use of animals defined the agency and increased its chances of long-term success.

In the decades preceding the Forest Service, convoys of horses, wagons and white settlers trudged westward where they met massive forests. Euro-Americans had never encountered forest of this magnitude. Europeans had developed forestry schools and managed the smaller forests in Europe but the forests of Western North America posed problems that were completely new. Settlers could not rely on European experience, technology, or techniques for many of the new challenges. Forest fire was one of these challenges. The large scale forest fires were likely unimaginable to these newly arrived settlers — in a matter of hours, miles and miles could be uncontrollably aflame, a phenomenon they had rarely encountered on the East Coast.

Forest fires obviously predated the expansion of white settlers and it was a problem that Native Americans had faced for generations. Native Americans employed certain techniques in order to mitigate the effects of fires on their lives. Forest fires were a natural force that did impact and damage their way of life on occasion. The white settlers' permanent lifestyle aggravated the problem of forest fires. Settlers' were apt to establish stationary residences concentrated in smaller areas. In the event of a forest fire, one could not pack up everything quickly and move to safety in the capacity that many of the more migratory Native American tribes were able to do. Settlers heavily relied upon livestock for subsistence and in some cases, livestock were unable to escape fire.ⁱⁱ If burned, most of the infrastructure would need to be rebuilt.

Additionally, the population in the West increased. The large forests induced a mass migration because land was very cheap, even free in some cases. Resources were abundant and the opportunity attracted thousands. More settlements interacted with wooded areas and increased the chances of accidentally sparking a forest fire. A population surge also increased the likelihood that a fire would affect someone or their property because there were more people, in more places. Many settlements resided within a close proximity to a wooded area. The skyrocketing population accidentally ignited the vast majority of forest fires, particularly in the decades before the Forest Service's addressed the problem.

Beginning in 1886, the federal government attempted to create a dedicated agency to oversee the establishment and management of national forests. In the years preceding the official establishment of the USFS, fire-fighting techniques were a free-for-all. Despite the lack of standardized fire-fighting practices, a fire-fighting culture existed. To protect their resources and property, farmers, ranchers, and loggers volunteered as soon as a smoky haze appeared. In his 1954 study about early forest fire fighting techniques, C. Raymond Clar noted "in California before the development of organized crews of professional firefighters, there was more enthusiasm and honest toil contributed on the fire line by farmers, lumbermen and townspeople than a present day observer might believe."ⁱⁱⁱ Farmers and lumbermen usually had access to livestock, and some began to bring their animals, particularly horses for transportation. Fire was not necessarily understood at this time. Nonetheless, narratives described "panic stricken men and animals rushing into the fire rather than to safety."^{iv} Many people risked their well-being and the health of their animals in a desperate attempt to quell fires.

Although volunteer crews of men and animals usually extinguished the fires, there were a few major breakdowns in the system. The system's reliance on untrained volunteers proved problematic. Certain communities expressed enthusiasm to volunteer to help, but others lacked the eagerness. Under dire circumstances, some people were forced to help and volunteer their horses. For example, in the 1910 fire in Wallace, ID, the Forest Service recruited both animals and men to help fight "the Great Fire." At the height of the drama, a man was even held at gunpoint when he tried to leave the fire-fighting camp.^v Additionally, the untrained volunteer crews often overlooked the importance of mop-up and patrol, which the Forest Service later established with enlisted human and animal labor for. In the early stages of fire-fighting, "Many fires broke out and away after they had been very adequately brought under control." As such, advocates of professionalized fire crews' most powerful argument was the need for mop-up crews.^{vi} The need for a governable, stable fire control system motivated the government's establishment an agency such as the USFS.

Other factors also precipitated the need for a federal agency to regulate the huge swaths of forest in the West. Conservationists pushed for some form of forest control because miners, ranchers and loggers exercised unrestricted access to the natural resources in the West. In many cases, they acted with little to no regard for future generations; miners dumped toxins recklessly, grazing cattle destroyed ecosystems and barred future regrowth, and most alarmingly, loggers clear-cut forests with reckless abandon. Gradually, the need to prevent widespread destruction translated into Washington DC's call for effective forest management. This political push manifested itself in the 1905 US Forest Service, which arose out of several preceding agencies. Headed by President Theodore Roosevelt and Gifford Pinchot, the first Chief of the

Forest Service, the newly established agency trumpeted an agenda of conservation and utility. The principal concerns of the agency were the management of timber and forest fire.^{vii} Despite legislative restrictions imposed by Congress, Roosevelt and Pinchot were able to vastly increase the square mileage of the National Forests in one move, later dubbed ‘the Midnight Reserves.’

The Forest Service represented an unprecedented expansion of federal power into the uncharted West and many settlers did not know what to think. The management of natural resources was a relatively new concept and there were no models to guide the development of the new state-of-the-art agency. The idea of conservation was off-putting to the existing public who had possessed unchecked access to natural resources. The result: the early Forest Ranger was a popular public servant. Although the Forest Service was not designed to ban economic profit or activity in the national forests, people remained wary of the institution. Reactions to the rangers varied from curiosity, to lack of respect, to anger or even open hostility. One early ranger described “In the Little North Fork, Marble Creek and Big Creek, we were extremely unpopular as rangers and had to use discretion and diplomacy. We never knew when a bullet might meet us in a thicket or on the trail.”^{viii} The rangers had a tough job — their job was not originally professionalized. The United States did not have a school of Forestry until 1898 and university-trained foresters were not part of the force until after 1910.^{ix} Beyond unpopularity, sectors of the population additionally lacked confidence in the Forest Service and the young foresters. An opinion piece from 1910 voiced concern over the ability of “Pinchot’s crew.” The author expressed little empathy for them and thought the entire system should be replaced. She advocated that the “army should be in charge of protecting the valuable forestry” in the name of efficiency and organization.^x

The Forest Service faced a multitude of hurdles in establishing itself as an agency in the West. During this struggle, fighting forest fires proved a rallying point. The idea of organized, institutionalized forest fire fighting appealed to almost everyone. Forest fires provided an opportunity for the Forest Service to make public relations gains, organize and professionalize their employees, and save precious resources. The only problem was that the Forest Service needed to improve its forest fire fighting techniques and success rate. The use of animal labor (in a number of manners) proved essential for early forest fire fighting progress and improved their statistics. The USFS inherited some knowledge about use of animals in fighting fires from their predecessors, particularly for transportation and hauling heavy tools and equipment. The Forest Service replicated and improved these techniques in their own forest fire-fighting pursuits.

Fighting massive fires was a difficult task and the Forest Service sought high quality men who could do the job. As USFS publically delineated their ideal ranger, rangers gradually became more qualified for the job. An early periodical article titled “How Forest Fighters Protect Uncle Sam’s Forest” outlined the hiring process for foresters in 1910 and their attempt to find a “superior type of man.” The Forest Service sought men with horses and horse-related skills. The horse was one of the most instrumental tools in the early Forest Service, so important, that owning one was a prerequisite for the job. In a field test, each potential ranger was “invited to display his knowledge of packing” and “each ranger (was) required to furnish his own horse and outfit.”^{xi} Following the trend of increasingly professionalized rangers, the *Journal of Forestry* also stated the desire for, “Not just any horse, and any plow.” The journal continued, “in order to meet the specifications of the fire line construction job in rough country the horse must be of heavy weight, of a certain kind of temperament, well

trained and hardened to such work.” The Forest Service also sought high quality horses for the job. ^{xii}

It was not easy for forest rangers to cultivate a coherent image as a respectable professional with authority. The atmosphere in the West was not conducive for welcoming an untested profession. The horse gave the forester an early identity and connoted intelligence. Public opinion initially looked poorly upon foresters — they were uneducated, young, rambunctious boys. In comparison, the horse provided a degree of uniformity and relatability, not to mention efficiency in their jobs.^{xiii} Arthur Chapman of *Outlook* magazine described stated, “To be a good ranger, you must know more about the horse and the wilderness than books.” Rangers who possessed these skills gained the public’s confidence. Chapman described a situation: “Suppose you have been out many days on the trail — that the horses have cinch sores and the horse ranger is out of temper in consequence, that the “grub” is running low...that the cold weather has set in. Suppose all this, and that, with two weary days to travel, you meet a forest ranger, who asks you to follow him.” Chapman concluded that if the rangers had horse and wilderness knowledge, people would follow and trust him.^{xiv}

A ranger’s horse accompanied him wherever he went. An early ranger from Oregon described a typical day: “June 28, Sunday. Got up at five o’clock. After breakfast rode up mountain back of cabin to look for signs of fire. Nothing doing. Then rode to forks of canon to count Jim Smith’s sheep.” On days when rangers were required to fight fires, men and their horses would work until either could go further. If horses tired first, rangers would relieve them of their saddles, and place them in safety on the inside of the fire line. Rangers and horses were steadfast companions. In the few moments of relaxation, a ranger “his horse out in the deep grass and spends an hour lying on his

back,” according to *The Youth’s Companion*.^{xv} The horse provided stability and companionship to the ranger, while promoting an image of uniformity and competence to the public.

The appearance that the horse provided certainly mattered, however, the horses’ labor in the Forest Service was arguably more important. At the end of the day, most people cared about their own safety above all else. The Forest Service required their rangers to provide a horse because they were useful in forest fire prevention and fighting. During the entire dry season, if rangers were not actively fighting a fire, they were expected to patrol. To rangers, locating forest fires proved a challenge and the speed of horses in rough terrain allowed the Forest Service a wider presence. As the Forest Service learned more about forest fire-fighting techniques, they recognized the importance of post-fire checks. In a new advancement, they utilized horses during the mop-up and sweeping stage once the fires were seemingly quelled. They were able to quickly ride around the area of the extinguished fire and check for brush fires and snags.

During actual fires, animal labor provided invaluable time. According to Clar “In fighting a fire, time is half the battle.”^{xvi} Accordingly, “the quicker help can be secured and the fight commenced, the easier it is to control a fire.” The landscape was incredibly difficult to navigate. The *Journal of Forestry* instructed the early ranger to “... take horses and ride as far as the Almighty will let you and get control of the forest fire situation on as much of the mountain country as possible. And as to what you should do first, well, just get up there as soon as possible and put them out.”^{xvii} Once the USFS sent a ranger to a fire, the decisions were left to the man and his horse. The time that was saved by using horses for transportation could make the difference between a manageable, burgeoning fire and a raging, uncontrollable blaze. Horses and pack mules,

which carried heavy supplies and gear to and from the fire, allowed foresters to direct their energy to fighting the fire exclusively.

Furthermore, timely communication throughout the rugged, expansive territory of the National Forest system posed an omnipresent problem that carrier pigeons took care of. Patrolling the forests proved useful for foresters locating fires earlier. To bolster the patrols, the Forest Service also established a system of watchtowers in order to effectively watch for fires. The agency strategically placed the watchtowers to gain a vantage of large expanses of the forest. One ranger resided per watchtower throughout the dry season and if they saw a fire, they needed to communicate its location quickly to someone located miles away. At the time, when telephone wires and radio towers were difficult and expensive to implement, carrier pigeons communicated messages with reliability and timeliness. In accordance with the watchtower system, *The Starry Cross* reported in 1920 that, “to establish a successful carrier pigeon system, it will be necessary to lay plans in the near future to have the posts properly located and get the birds acclimated and begin their training.”^{xviii} The USFS started testing carrier pigeons quickly.

The Forest Service borrowed the idea to use carrier pigeons from the U.S. Navy. The Forest Service performed the first tests during the fire season of 1919 in Oregon with pigeons and equipment loaned from the Navy. Once deemed successful, the USFS acquired more of the Navy’s supplies and fully implemented the strategy in 1920.^{xix} *The Starry Cross* reported that carrier pigeons could fly 600 miles in a day and 150-200 miles in a two or three hour flight. The Forest Service required shorter flights than the Navy and most pigeon’s flights were less than 50 miles.^{xx} The pigeons were successful in mountainous and rugged terrain. In 1922, the *Forestry Kaimin* reported that the carrier

pigeon outpaced any other form of communication at the time.^{xxi} The Forest Service established coops for homing pigeons throughout the federal forests.

Possibly the most important role that animals played, however, was in building fire-lines or firebreaks. According to the Forest Service, “In building fire-lines, all fuels are removed and the surface scraped to mineral soil between 6 inches and 3 feet wide depending upon the fuel and slope. It needs to be wide enough to prevent smoldering, burning or spotting by embers blowing or rolling across the line.”^{xxii} Firebreaking is a tool still used in modern firefighting. In order for crews to effectively control a fire, fire lines needed to encircle any movement of the fire and halt its progress — no easy task. The horse and plow were invaluable tools in building these lines. The Forest Service was in desperate need of hard-working, adept crews.^{xxiii} Lack of manpower was a serious problem in the early years of USFS. Although the profession was gradually gaining popularity, the existing rangers were often thinly spread. It was rare that any one fire had the number of men to adequately fight it. The use of animal labor mitigated this problem. According to *Journal of Forestry*, one effective horse and plow team could complete the work of one hundred and thirty men.^{xxiv} Combined with men using hand tools, these Forest Service organized crews were able to improve fire-fighting in the early twentieth century.

Indeed, the establishment of the Forest Service did reduce damage of forest fires. Prior to 1905, the year the federal government created the USFS, it was estimated that around 30 million acres of forest burned every year. Post-1905, the number of acres burned annually by forest fires was reduced dramatically, eventually as low as 1.9 million acres per year.^{xxv} In 1923, the *Overland Monthly and Out West Magazine*, published a photo of a flourishing forest with the caption, “the rangers protect this for

you.”^{xxvi} There were still plenty of outrageous burns that got out of control and damaged large amounts of property but the Forest Service had certainly improved the prevention and fighting techniques. The public could still argue that the USFS’ management of the national forests impinged on their logging and grazing rights, but the public found it more difficult to complain about improved fire-fighting techniques.

A lot of the early fire techniques centered on animal power. Although there was still substantial criticism of the Forest Service, the public’s call for its abolishment and their request to replace unkempt rangers with a professionalized army largely disappeared from the public sphere. Without animals at the helm, one can only speculate how much more difficult the transportation, communication, and actual fighting of fires may have been. Animals alleviated with the lack of manpower and even competed with arising technology. As stated in the intro, animals were still the technology of choice in particularly rough terrain — in some circumstances, even the best power tools could not compete.^{xxvii} Animals were essential to establishing the Forest Service’s initial successes in fighting forest fires. Animals were the technology that allowed the USFS to work beyond the limitations exclusively employing manpower. Animals were the technology that predated the industrialized, mechanized tools that took the West by storm. Even as technology advanced to unprecedented modernized levels, the steadfast technology of horse and pack mules were still occasionally employed by the Forest Service when fighting forest fires in remote areas.

That being said, eventually, technology did replace animal labor used in forest fire fighting in a big way. Beginning around the 1930s, developed technology could do the same thing that animals could, and in many cases faster and cheaper.

Industrialization occurred industry-wide and the Forest Service was no exception. The

crawler tractor usually outpaced the horse and plow combo in building fire-lines. Aviators developed smoke-jumping technology in 1939 in the US. Smoke-jumping allowed firefighters to parachute into difficult-to-reach locations and provided unprecedented timely access in remote areas. Additionally, the public popularity of automobiles soared and the Forest Service increasingly built roads to provide automobile accessibility. Many roads were aptly named fire roads because they provided access to fires deep within forests. Finally, radio and telephone lines provided rangers with instantaneous communication. Rangers in fire towers could alert entire fire-fighting crews within minutes of spotting a forest fire. The Forest Service simply did not rely on animal labor in the same manner as in the past. Instead, animals fought fires in a different manner: the Forest Service used animals, and the idea of animals, as a tool to engage the public in active fire prevention.

As public concern about wildlife increased, the Forest Service began to emphasize wildlife as a facet of their organization and management strategy in order to engage the public. This new strategy predominantly manifested itself in the realm of forest fire prevention. Forest fires served as an important point of contact between the USFS and the public. The public had always recognized the danger of forest fires and it proved to be a major selling point in the establishment of the Forest Service. Largely unbeknownst to wider society, the public's irresponsible practices caused many fires. Their tossed-aside cigarettes and unattended campfires produced numerous forest fires. The Forest Service had employed animals to fight ignited forest fires for decades, but animals' role in the Forest Service primarily shifted to prevention and education. It was Smokey Bear, the well-known USFS mascot, who ultimately championed USFS and forest fire

prevention. Both character and real-life bear, the public loved Smokey. The bear cultivated an active public engagement and education surrounding fire prevention.

An animal mascot for forest fire prevention was particularly successful strategy in the mid-1940s and 1950s for two main reasons. Firstly, World War II caused a surge in public concern over the nation's resources. Society experienced food and goods rationing, manpower was in shortage, and timber was in high demand for the war effort. Prior to the advent of Smokey Bear, USFS fire prevention posters featured wartime rhetoric. One poster in 1943 sloganed, "Our Carelessness, Their Secret Weapon — Prevent Forest Fires."^{xxviii} There was a public sense of urgency in protecting the nation's forest reserve, particularly from wasteful fires. Public prevention was paramount — few able-bodied men were left in the US to fight these deadly flames.

Additionally, the public circulated rumors that Japan may employ forest fires as a wartime weapon, essentially creating another front the US would need to devote resources and energy towards. In 1942, Japanese submarines fired missiles at an oil field near Santa Barbara, California. The public panicked at the thought of widespread property destruction, particularly their forests on the Pacific Coast - a necessity for the war effort.^{xxix} Although many of these concerns never came to fruition, the public's sense of fear — of Japanese caused fire, of depleted resources and of lost manpower — created an atmosphere in which the public was receptive of a message of forest fire prevention. Wartime slogans preyed upon the public's fear, but especially upon the wrap up of the war, it was the image of innocence, animals in their natural habitat, that caught to public's attention. Even after the war ended, public forest fire campaigns continued to phrase prevention as a war against fire.

Secondly, in conjunction with the effects of WWII, the public's concern over animals increased during the mid-1940s-1950s. Simply put, more people were aware of the country's natural resources, beauty, and the wildlife dependent upon it.

Transportation advancements allowed people to travel to new places with a newfound ease, and many people experienced the wildness of the West firsthand. Possibly of more importance, photography and film advanced significantly and along with it, a subgenre of natural photography. Magazines such as National Geographic started featuring color photographs in the mid-1930s. People in cities could gaze at pictures of ferocious grizzly bears in a stunning forest — an image they could not have imagined without the widely circulated captivating photos. Film, particularly Disney, brought animals' lives to the public and gave animals a personality. From *Bambi* to the True-Life Adventures series, Disney was instrumental in bringing wild animals to film and popular culture. As Gregg Mitman states in his book *Reel Nature*, "In their search for pristine nature, naturalist-photographers and American conservationists found in Disney's True-Life Adventures a place of renewal to offset the oppressive conformist trends of an affluent consumer society and a means to increase public appreciation for wilderness areas they sought to preserve."^{xxx} The True-Life Adventure short films provided the urban population with a view of the vast wilderness, and the narrative gave the production a relatable voice.

The surge of animal-inspired stories gave the wildness a drama that people could connect to. Popular culture was apt to attribute human traits to animals — narratives gave animals emotions and life stories. Disney tapped into a vein of America's psyche that had the capacity to love and feel for wild animals. The USFS took this idea and ran with it. In 1942, Disney's film, *Bambi*, premiered, featuring a fawn's exploration through the woods with his other animal pals. The public fell in love with this young deer, a fact

that the Forest Service quickly capitalized on. At first, the Forest Service utilized Bambi to spread their own message of fire prevention; Smokey Bear was not the first animal that the Forest Service utilized in a public engagement capacity. Disney allowed the Forest Service to feature Bambi on fire prevention posters in 1942.^{xxx1}

The access that Disney granted the Forest Service to Bambi was temporary; Disney revoked the privilege after one year. Bambi's success in a public campaign was striking to the Forest Service and they needed to come up with another character to fill in and expand the job Bambi started. Furthermore, the Daily Ardmoreite attributed the transition from Bambi to Smokey to the physical characteristics of the two different forest inhabitants. The article stated, "Before Smokey Bear came along, " Bambi," the Walt Disney deer character, had central billing. But " Bambi's" fragile appearance made the deer unfit for the rugged job of fighting forest fires."^{xxxii} Although Bambi (or figures bearing a remarkable resemblance) later appeared, for the time being, the Forest Service realized the potential of animals in cultivating a relationship with the public. Without Bambi, the Forest Service needed to develop their own animal mascot.

Although the atmosphere was ripe for an animal mascot to captivate the public's attention, Smokey Bear's success was not guaranteed. Designers in the Forest Service developed Smokey Bear in 1944 and the agency officially authorized his use later that year on August 9. The idea of a ranger bear provided the public with a lovable character and gave people another reason to cooperate with the Forest Service's efforts. The first poster, by Albert Stahle, showed Smokey Bear pouring a bucket of water on an abandoned campfire and featured the initial slogan: "Smokey Says — Care Will Prevent 9 out of 10 Forest Fires." Posters depicted Smokey in jeans and a ranger hat, probably alluding to his human attributes. By 1947, Smokey's slogan had updated to

“Remember...Only YOU Can Prevent Forest Fires,” a reference to Uncle Sam’s patriotic call to war. The Smokey Bear Wildlife Prevention campaign of 1944 stressed cooperation. The federal USFS, the National Association of State Foresters, and the Ad Council worked together as agencies. But most importantly, the Forest Service mobilized the public. In 2005 at the 100-year anniversary, the Forest Service described the Cooperative Forest Fire Prevention (CFFP) program as, “The most famous cooperative effort, which continues to this day, involves the forest fire prevention program.”^{xxxiii} The Forest Service had taken careful steps to achieve this success.

The Forest Service launched campaigns surrounding Smokey Bear in states all around the country in an attempt to cultivate nationwide attention. Campaigns featured posters, window cards, bookmarks, blotters, radio programs, and other educational material in order to reach the public in any way possible. Campaigns even targeted state not traditionally known for wildfires. Four years after the launch of the Smokey campaign, the director of the campaign in Arkansas, Mr. Lang, pointed out that “this year’s drive would be a vigorous effort to build a sentiment among the people that would ultimately eliminate most man-caused fires from our woodlands, and to prevent a possible fire disaster such as the State of Maine, had last year.” Lang continued, “effectiveness of the campaign would depend upon the cooperation of individuals.” Humans caused nine out of ten wood fires and clearly something needed to be done. Lang’s statistics stated that in the previous year, 47 percent of fires were incendiary, 30 percent were caused by reckless smokers, seven percent by careless burning of debris, and four percent by campers.^{xxxiv} These statistics demonstrate the alarming rate that reckless behavior caused expensive fires. The Forest Service implemented Smokey campaigns to target this precise problem.

Many of the Smokey Bear advertisements featured material addressing the carelessness that resulted in numerous forest fires. Major themes included correct use of matches, proper tobacco use and cigarette disposal, and safety precautions regarding campfires. Often, the poster included family values; one poster showed Smokey teaching two young cubs how to dispose of a lit cigarette they found. In some cases, religion was also brought in. Another poster pictured Smokey on his knees praying, "...and please make people be careful, amen."^{xxxv} Smokey Bear was adaptable to all forest fire prevention message and had the potential to appeal to a vast audience. Based on the rhetoric of the posters, launched campaigns seemed to target those who loved nature, those who loved animals, those who were religious, those with a family, and those who wanted to protect the United States — essentially most people in the United States. The character of an animal was not enough to propel Smokey Bear to the far-reaching level of popularity he later enjoyed. The Smokey campaign in conjunction with a real grizzly bear's forest fire story led to Smokey's 95% adult household recognition.

Smokey, the live bear, took the scene in 1950, a few years after the CCFP campaign was launched. On June 27, 1950, the Captain Gun Fire burned 17,000 acres in the Lincoln National Forest in New Mexico. A careless person started the fire in the Captain Gun Mountains. In the aftermath, the firefighters found a lone survivor, a young grizzly bear cub. The cub had scrambled up a tree in order to escape, however, the blaze had still scorched his hind legs and paws. Although initially named 'Hotfoot Teddy', the Forest Service quickly renamed the cub Smokey, which irrevocably associated him with the Smokey Bear posters. National newspapers promptly picked up Smokey's story and his popularity soared. Once fully healed, authorities transported

Smokey to the National Zoo in Washington DC, where he permanently resided as the Forest Service's living symbol, until retirement in 1975 and death in 1976. When the Forest Service decided to connect the abandoned bear with the Smokey Bear campaign, they gained a lot of public curiosity and support. One class reported that, "When we heard the story of Smokey, we liked it. The best part of the story of Smokey was when the fire fighters found him."^{xxxvi} People loved the bear with the inspiring tale.

Smokey's twenty-five year tenure at the National Zoo was one of remarkable feats. Smokey quickly became the celebrity-status live symbol of wildfire prevention. Smokey was the most visited attraction in the Zoo, attracting millions of citizens from across the country. Furthermore, thousands of people sent letters to Smokey — one paper estimated as many as 1000 letters per day in 1956.^{xxxvii} In fact, so many people mailed post to the bear, that the US Postal Service gave Smokey his own zip code of 20252. Many people simply addressed the letters. "Smokey Bear 20252." Children and adults alike professed their admiration for Smokey Bear and promised to do everything they could do to spread his message and prevent forest fires. One letter read, "Dear Smokey: I think your story was awesome. I want to prevent forest fires. I am with you forest fires stink. I am so sorry that your mother passed away. Someday I want to be like you. Reed."^{xxxviii} Others asked for more information, others professed their desires to become future forest rangers. Almost all indicated a deep connection with Smokey and his message.

As Smokey got older, zookeepers at the National Zoo attempted to mate Smokey with another bear, Goldie, but the couple was never able to reproduce. Despite this setback, Smokey and Goldie "adopted" Little Smokey, another bear orphaned by fire. Little Smokey became Smokey II from 1975-1990, although he never attained the

popularity level of the original Smokey. However, the legacy lived on and expanded. The symbol and character of Smokey was easily recognizable to the masses and the USFS sold and distributed Smokey merchandize. In propagandist fashion, the Forest Service, in partnership with the state forestry agencies, widely distributed material to drive their message home. One article reported that Smokey's immense popularity amazed even the most veteran Forest Service officials.

The Forest Service's influence through Smokey was powerful, so powerful that the 82nd Congress passed a law protecting Smokey's image and integrity. Additionally, the Smokey Bear character provided considerable commercial possibilities. The Smokey Bear Act of 1952 read, "Whoever, except as authorized...knowingly and for profit manufactures, reproduces, or used the character "Smokey Bear"...shall be fined not more than \$250 or imprisoned not more than six months of both."^{xxxix} The act removed Smokey from the public domain. For example, people were not allowed to wear a Smokey Bear costume without explicit permission. Under the act, licenses were difficult to obtain and their purpose must perpetuate Smokey's message of forest fire prevention. The Ardmore Daily Ardmoreite reported in 1953 that the only licenses issued were for a song, a Smokey teddy bear, scarves, hankies, jigsaw puzzles, coloring books, and belts.^{xl} Licenses pended for many other businesses requests. The Forest Service was allowed to keep all royalties from the Smokey Bear Act and spend the fund on continued forest fire prevention education. Smokey allowed the Forest Service to adapt to consumer society, establishing its permanence in a modernizing world, and give it a place in popular culture.

In an attempt to foster fire prevention from the ground up, the Smokey campaign pandered to youth. According to the Beckley Post Herald, after witnessing Smokey's

success in the National Zoo, “foresters and educators got the idea of selling fire prevention to kids on a national scale — in a way that would really stick with them.” Accordingly, the licences issued under the Smokey Bear Act reflected “items of wear prized by youngsters.”^{xli} The prestige of forestry increased and it became young children’s career-of-choice across the nation; State Foresters and the USFS sponsored the Smokey Bear Junior Rangers Program. Young children dedicated themselves to the cause. When they witnessed adults exhibiting irresponsible forest fire behavior, the children, Smokey’s Junior Rangers, objected. They reprimanded their parents when they carelessly tossed cigarette butts to the grass. The Beckley Post Herald speculated ‘Smokey, the Forest Fire Preventin’ Bear’, “now as much at home to many children as cowboys and Dragnet, is a three dimensional reminder of how Smokey suffered.”^{xlii} It was successful. For example, nine years after the start of the program, forest fires in Arkansas were down 20,000 acres per year from the pre-war average.^{xliii}

In the first 40 years of the organization, the Forest Service had come a long way. Foresters had transformed into professionals. Forest fire fighting had mitigated the damage of fires and World War II had increased the importance of fighting these fires. Smokey Bear represented everything that foresters wanted to be portrayed as. The Forest Service gave a face and a personality to forest fire fighting and prevention. Smokey was steadfast, strong, hardworking and responsible. Newspapers continuously gave Smokey a personality, describing him as “successful” and “hardworking”. For example, the *Admore Daily Ardmoreite* describes Smokey: “But, being a modest fellow, Smokey refuses to take any credit for it. He just keeps saying over and over, “Remember, Only YOU Can Prevent Forest Fires.”^{xliv} Smokey was a tool and he demanded public participation and engagement. He drove home the message that the Forest Service was

there and they were good at their jobs, but effective prevention required cooperation with the public.

For years, people have been killed or injured fighting forest fires. Wildfires have produced both tragic stories and inspiring tales of heroism and sacrifice. Foresters spent long, strenuous hours protecting public life and property. Yet no human figure or character captured the hearts of average Americans the way that a young bear cub was able to. A bear, an established inhabitant of the forest, was the perfect choice for the Forest Service. Bears are protective of their territory, but not overtly vicious. They are strong and tough, but lovable. Little controversy surrounds bears and Smokey was an apolitical choice for a permanent symbol and real-life story of the Forest Service. Animals represented the nature that more people wanted to protect. They engaged the public to action, inspired responsible behavior, and garnered love, respect, but most importantly, recognition for the USFS. The Forest Service utilized the growing concern over protection of animals and wildlife to advance their own cause, and it was hugely successful. Human-caused forest fires decreased and Smokey fostered the recognition of forestry that transcended demographics.

Today, forest fires are a monumental issue. Each year, a majority of the Forest Service's budget is put towards fighting the beastly fires — a colossal amount of energy and financial resources are put towards fighting forest fires and developing new technology, such as new retardant-drops to suppress flames. There are controversies surrounding forest fires; who is in charge of a fire that encompasses state, federal and tribal land? How many resources should be allocated to each fire? How much should loggers' be allowed to clear-cut when fires are increasing in frequency? There are no clear answers to these questions. One thing is clear, however, the Forest Service has

been established as an enduring authority in forestry issues, particularly fires. The USFS is the force on federal forest land management. Animals played a critical role in fostering the respected, durable presence of this agency.

In July 2016, the Ventura County Star reported on a forest fire blazing in the Sepse Wilderness, a particularly rugged area of the Los Padres National Forest in California. The area was extremely difficult to reach by vehicle. The article reported “hard working mules” and horses helped transport rangers and supplies to and from the fire — the mules and horses saved crucial time and energy. Even after decades of technological advancement, animals still have a place in fighting forest fires. The government established the Forest Service in a time when little technology had been developed and animals assisted in almost every aspect of fighting forest fires. As the Forest Service became more effective at fighting forest fires, they gained prestige and respect. The image of a forester with their horse promoted uniformity and trustworthiness. By fighting forest fires, animals helped to establish the Forest Service as a permanent agency of the federal government.

Around the 1940s, animals largely switched from fighting actual fires, to preventing fires — and by an entirely new method. Where fighting forest fires required many expensive horses, mules and carrier pigeons, one animal with a huge following sufficed for prevention. Through an omnipresent advertising campaign, the media’s coverage of live bear rescue, and an engaged young generation, Smokey Bear became a household name that promoted the Forest Service and its message. The Smokey campaign was so successful that the Forest Service employed the same technique in the 1970s with the creation of Woodsy the Owl, whose slogan was “Give a Hoot, Don’t

Pollute.” Throughout the evolution of the Forest Service, as it has become more uniform, respected, engaged with the public, animals contributed significantly.

ⁱ Roy Hadley “Recent Mechanical and Other Innovations in National Forest Fire Control.” *Journal of Forestry* 30, no. 2 (February 1, 1932): 178–86.

ⁱⁱ “The Fire Fiend,” *The San Francisco Call*, September 25, 1898.

ⁱⁱⁱ C. Raymond Clar, L.R. Chatten, *Principles of Forest Fire Management*, (Sacramento Dept. of Natural Resources Division of Forestry: 1954), 86.

^{iv} Glen A. Smith, interview, Missoula, Montana, 1956 (University of Montana Oral History Collection).

^v Timothy Egan, *The Big Burn: Teddy Roosevelt and the Fire that Saved America*, (Mariner Publications: 2009).

^{vi} Clar, Chatten, 86.

^{vii} Williams, 10.

^{viii} Betty Goodwin, *The Big Blowup* (Caldwell, Idaho: Caxton Printers; 1956).

^{ix} Williams, 21.

^x Work for Fighting Men,” *The Roundup Record*, August 12, 1910.

^{xi} Arthur Dahl, “How Forest Rangers Protect Uncle Sam’s Forests” *Overland Monthly and Out West Magazine* (Vol LV No. 4, April 1910).

^{xii} Hadley.

^{xiii} Dahl.

^{xiv} Arthur Chapman, “A Day With A Forest Ranger,” *Outlook*, October 28, 1905: 489.

^{xv} Will Barnes, “The Forest Ranger: In Two Parts. Part Two Fighting Fire. A Test of Endurance. The Ranger a Naturalist. Ranger Schools,” *The Youth’s Companion*, November 10, 1910: 623.

^{xvi} Clar, Cutter 39.

^{xvii} B. M. Huey, “The First U.S. Forest Ranger,” *Journal of Forestry* 45, No. 10 (October 1927): 765.

^{xviii} “Pigeons in Fire Fighting – Forest Service Uses Them as Messengers – Feathered Heroes on View,” *The Starry Cross Vol. 19*, Philadelphia, PA, March 1920.

xix "Carrier Pigeons Aid Foresters," *American Forestry* 25, No. 11 (November 1919): 1504 and "Pigeons for Forest Fire Fighting," *American Forestry* 26, No. 2 (February 1920): 122.

xx "Pigeons in Fire Fighting."

xxi "Rangers Use Carrier Pigeons," *Forestry Kaiman* 4 (1922): 35.

xxii Williams, 140.

xxiii Williams, 21.

xxiv Hadley.

xxv Williams, 15.

xxvi *Overland Monthly and Out West Magazine* Vol. LXXXI No. 3, July 1923: 19.

xxvii Hadley.

xxviii "Smokey's History." Smokeybear.com. <https://smokeybear.com/en/smokeys-history?decade=1940> (accessed November 23, 2016).

xxix Ibid.

xxx Gregg Mitman, *Reel Nature: America's Romance with Wildlife on Film*, (Cambridge, MA: Harvard University Press, 1999): 110.

xxxi "Smokey's History"



xxxii "Amazing Bear Does Much to Prevent Forest Fires," *Admore Daily Ardmoreite*, August 30, 1953.

xxxiii Williams, 80.

xxxiv “Forest Fire Prevention Work,” *Camden News*, March 4, 1948.

xxxv “Smokey’s History.”

xxxvi “Smokey Enlists Kids Against Forest Fires,” *Alamogordo News*, October 17, 1956.

xxxvii Ibid.

xxxviii Kathryn Sobse, “Letters to Smokey Bear Reveal Promise of Hope for the Future,” Office of Communication, U.S. Forest Service.

xxxix US Congress, *Smokey Bear Act*, May 23, 1952.

xl “Amazing Bear Does Much to Prevent Forest Fires.” As an aside, the Smokey Bear song, published in 1952, referred to Smokey as Smokey *the* Bear, which was adopted into popular culture. Today, Smokey is commonly referred to as Smokey the Bear and Smokey Bear.

xli “Smokey Bear Toy Is Fire Prevention Envoy,” *Beckley Post Herald*, November 13, 1953.

xlii Ibid.

xliii “Amazing Bear Does Much to Prevent Forest Fires.”

xliv Ibid.

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