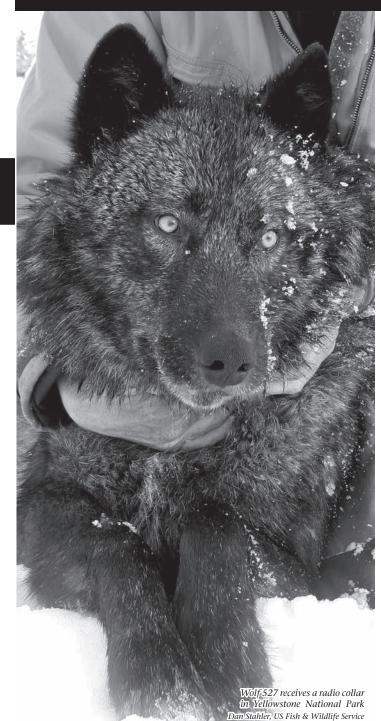
a Collision of Values in the Northern Rockies



By Wendy Keefover and Mark Salvo

Folf 527 was born into the Druid wolf pack of the Lamar Valley in Yellowstone National Park in 2002. She sported a fluffy black coat and startling amber eyes. She hunted elk, gave birth to numerous pups, and founded her own pack. A highly intelligent creature, Wolf 527 lived by her wits and maintained her pack in an area where four other packs had previously failed. She vigilantly avoided humans. But in 2009, while hunting outside of the Park's boundary, she was felled by a gun and treachery. Wolf 527 was one of the first wolves taken during state-regulated wolf hunts in Montana and Idaho. This is her account, and the story of the policies that failed her.

Most of the founding members of the Druids were captured in Canada and released into the Yellowstone in 1996, the second year wolves were restored to the Northern Rockies. The Druids prevented other wolf packs from incursion into their territory while they themselves seized large tracts from other packs in the Lamar Valley. At its peak, the Druid pack numbered 37 members, the largest wolf pack ever recorded.

In 2003, as a yearling, Wolf 527 left the Druids to join the Slough Creek pack, which had been founded by her sister, Wolf 217, another former Druid. A year later, Wolf 527 bested other pack members to become the Slough Creek pack's beta female, second only to the alpha female in a wolf pack.

Much to biologists' surprise, four Slough Creek females gave birth to pups in 2005. Before that point, most believed that only the dominant alpha pair in a pack would breed. But in 2005, distemper ravaged the band of new pups; three survived, however, including 527's daughter, the "Dark Female." She was so named by wolf watchers and biologists because of her distinctive ebony coat.

In January 2006, Park Service biologists fitted Wolf 527 with a radio collar. It soon fell off, and in December, she was reoutfitted with another. The radio collar enabled researchers to detect her whereabouts, so they could glean information about the life of wolves in Yellowstone, including information about reproduction, movements and behavior. With the help of Wolf 527, the Slough Creek pack, eventually took over the Lamar Valley from the Druids.

Wolves continually battle each other for territory and resources. In 2006, rival wolves laid a dramatic siege on the Slough Creek pack. Observers named the intruders "the

Unknowns" because they wore no radio collars and suddenly appeared in Yellowstone from the forests outside the Park. For twelve days, the Unknowns encamped outside the den of the Slough Creek pack females. The females, perhaps numbering six, including 527, survived on liquid alone, hurriedly nipping at snow at the den's entrance and then retreating back into the den.

Under these hostile conditions, the females rallied. They escaped the den under cover of darkness and met up with their male pack mates. In the ensuing battle, the Slough Creek pack drove the interlopers away. The cost of the struggle included the loss of all the pups that year. Apparently, they had been consumed because the biologists who entered the den after the siege found no remains.

In 2007, Wolf 527 took a mate and, along with her daughter, the Dark Female, and a couple of large males, founded the Cottonwood pack. The Dark Female would flow between the Cottonwood and the Slough Creek packs.

Wolf watchers declared Wolf 527 an unusually wary alpha female, and one who had talents not achieved by others—either before or since—because the Cottonwood pack managed to thrive in marginal habitat situated on the northern boundary of the Park. It was centered between two rival camps, the Slough Creek pack and the Leopold pack. Four other wolf packs in this territory had previously failed. No wolf pack has succeeded in this area since.

The Cottonwood pack proved a mystery to researchers and wolf watchers. Its members avoided roads and often travelled outside of the Park to feed, perhaps even on gut piles left by human hunters, but Wolf 527 always denned with her pups inside the Park.

The Dark Female, 527's daughter and one of the three pups that had survived the 2005 distemper outbreak, proved hearty. In one instance, a biologist watched her chase a healthy elk for 2.5 miles. The Dark Female's 19 Slough Creek pack mates fell back, but she never relented. When the exhausted elk finally stopped in a river, the Dark Female was still in pursuit and her other pack mates finally loped up behind her. The elk landed powerful kicks on some of the wolves. Some went underwater. But the wolf pack, lead by the athletic Dark Female, won this day, and the Sloughs fed on the elk.

In February 2009, the Dark Female was captured by Park Service biologists and outfitted with a radio collar of her own; she was renamed Wolf 716. Now Park Service biologists could monitor both Wolf 527 and Wolf 716. The Cottonwood pack, so visually elusive, suddenly gave trace.

While Wolf 527's signal could be detected, she rarely made herself visible. Wolf 527 would not cross a road when people were about, but would cross after quiet nightfall, especially when provisioning for her pups.

In April 2009, Wolf 527 denned and produced five new pups, three black and two gray. In July, Wolf 527's

collar stopped transmitting data and so the only remaining working collar in the Cottonwood pack belonged to Wolf 716.

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On September 24, 2009, a party of hunters led by an outfitter shot Wolf 716 and the Cottonwood alpha male, 527's mate, when the two wolves stepped from the safety of the Park. On October 3, 2009, another outfitter shot Wolf 527 outside of the Park. Wilderness packs, unused to people, are easily "howled" in to rifle range.

The year, 2009, marked the first legal wolf hunt in Montana in decades. Yellowstone wolf watcher Laurie Lyman lamented, "527 had a strategy for every natural situation, but was not able to out think the rifle." In 2009, human hunters killed a total of six members of the Cottonwood pack. Some may have been Wolf 527's yearling pups.

The Yellowstone Wolf Project studies the reproductive success of wolves in the Park. Wolf 527 was studied for the majority of her life span. Unlike other subjects, Wolf 527 had remained alive for a long period, and had not dispersed from the Park. Her death marked the loss of an important research subject. The project had received a \$480,000 grant from the taxpayer-funded National Science Foundation. The cost of each radiocollared wolf was approximately \$1,500, including the labor of collaring each wolf and the collar itself. The wolf hunt frustrated a number of other Yellowstonebased studies, including ones involving wolf behavior and elk-wolf predation.

Wolf hunting has tested peoples' values and beliefs. For some, the return of the wolf provokes images of savagery and brutality, but for others, it is the return of an iconic, highly social, ecosystem engineer that rightfully belongs in North American forests and grasslands. To date, 361 have been hunted and trapped in Montana and Idaho.

Eliminating ESA protection for wolves

In February 2008, the US Fish and Wildlife Service (FWS) eliminated Endangered Species Act (ESA) protections for gray wolves in the Northern Rockies in Idaho, Montana, and Wyoming, and portions of Oregon, Washington and Utah. Northern Rockies' wolves were without protection for the first time since they were reintroduced to Yellowstone and Idaho 14 years earlier.

Secretary of the Interior Ken Salazar reaffirmed the Bush-era decision to remove protections for gray wolves in Idaho, Montana and portions of Oregon, Washington and Utah, but retained ESA listing for wolves in Wyoming because the state's "management plan" called for "shooting on sight" any wolf that stepped outside the bounds of Yellowstone and Grand Teton National Park.

Secretary Salazar's "wolf rule" went into effect in May 2009. Montana and Idaho immediately called for wolf hunts that allowed 500 wolves to be shot by hunters, in addition to other wolf kills purportedly done to protect livestock.

In announcing the new wolf rule, Secretary Salazar indicated that Idaho and Montana should not be "punished" for Wyoming's failure to offer a plan that would sustain wolves. A host of biologists led by Bradley Bergstrom objected to such rationalization and published a peer-reviewed article in 2009 stating: "[claiming that] hosting an endangered species living mostly on federal public lands in the northern Rockies is forced punishment on a state" is a poorly reasoned position by the nation's top wildlife official. These same biologists further argued that wolves had been recovered to less than one-third of the Northern Rockies recovery area and, therefore, their delisting was premature.

In June 2009, a coalition of 14 conser-

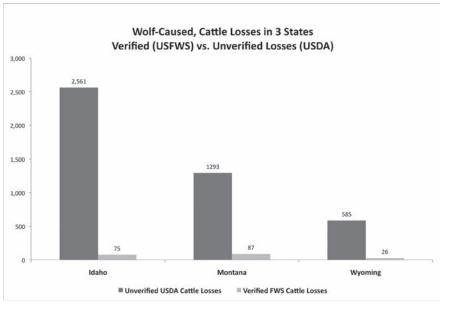
vation and animal welfare organizations sued the Secretary in an attempt to reverse the delisting decision and to prevent Idaho and Montana from allowing wolf hunting. In September 2009, US District Court Judge Donald Molloy denied a preliminary injunction to stop the wolf hunts while he considered the case. In August 2010, he determined that Secretary Salazar's wolf rule was illegal, he enjoined further wolf hunting and reinstated the wolves' "threatened" status under the ESA.

Soon thereafter some Congressional members began to threaten to remove wolves from the threatened and endangered species list in order to appease a vocal minority that was making mythic claims about wolves' appetites for domestic livestock and their native prey such as deer and elk.

In March 2011, the coalition of 14 litigating organizations dissolved. Some groups signed an agreement with FWS to remove wolves in the Northern Rockies from the ESA list (settling plaintiffs). Others, Alliance for the Wild Rockies, Friends of the Clearwater, the Humane Society of the United States, and Western Watersheds Project (non-settling plaintiffs) refused to compromise with FWS. They wanted to retain wolves' protected status to protect recovering populations and because there was no guarantee that a settlement would stem Congressional action to delist the wolves in any case.

In March 2011, WildEarth Guardians stepped into the discord to represent three of the non-settling plaintiffs in their opposition to the settlement deal between the settling plaintiffs and FWS. On April 9, 2011, Judge Molloy ruled that, because not all parties had agreed to the settlement, he would not certify it. The Northern Rockies wolves remained on the threatened and endangered species list...but not for long.

In April 2011, Senator Max Baucus (D-MT), Senator Jon Tester (D-MT), and Representative Mike Simpson (R-ID) sponsored a rider on an unrelated budget bill that



delisted gray wolves in Montana, Idaho, and portions of Utah, Washington, and Oregon. The rider contravened Judge Molloy's 2010 order relisting the wolves, throwing their management back to the states.

In May, Alliance for the Wild Rockies, Friends of the Clearwater, and WildEarth Guardians challenged the constitutionality of the congressional rider, arguing that it violated the Separation of Powers Doctrine in the US Constitution. Western Watersheds Project joined other organizations in a companion case. The groups lost in Judge Molloy's court in Montana in August 2011, but appealed to the Ninth Circuit Court, which heard the case in November. These organizations seek to preserve wolves, protect the public's interest in wolf conservation and their long-term investment in the wolf recovery program, and uphold the US Constitution.

Wolf hunts commence

In the meantime, wolf hunting has recommenced in Idaho and Montana. While FWS estimates that Idaho has 705 wolves, the Idaho Department of Fish and Game claims to have "more than 1,000 wolves." The agency's goal is to "manage for at least 150 wolves" or, in other words, reduce the state's population to the federally-mandated minimum. Idaho did not set a kill limit on wolves for the 2011-2012 hunting and trapping season, which began in August. Residents pay just \$11.50 for a wolf-hunting tag, while non-residents pay \$31.75. To date, Idaho has sold 35,339 wolf tags.

FWS estimates that Montana has 566 wolves, although Montana Fish Wildlife & Parks (MFWP) claims 645 wolves inhabit the state. Montana has issued over 18,477 hunting licenses and set a kill quota of 220 wolves for 2011. The hunting season, which commenced on September 3, has been extended to February. Residents pay \$19 for a wolf tag, while non-residents pay \$350.

While more than 54,000 hunters will pursue wolves in Montana and Idaho this winter, these states have little clue about how many wolves actually exist. MF-WP's wolf count is the subject of expert scrutiny. In 2011, Jay Mallonee, a researcher with Wolf and Wildlife Studies, published an article calling MFWP's wolf count totally inaccurate. Because Montana has few radio-collared wolves, it relies on anecdotal information gathered from the public, especially hunters. To count a wolf population, one needs to know the number of births, deaths, immigrants and emigrants, Mallonee writes, which is nearly impossible if animals are not marked. Additionally, Mallonee claims that Montana added immigrant wolves from Canada, Idaho and Wyoming to its count, based on speculation, but not empirical data. Mallonee contends that MFWP can neither justify its population estimate, nor the hunting quotas informed by it. He concluded the hunting quotas "are completely arbitrary."

Regardless of which counts are accurate, wolves in the Northern Rockies are not recovered and politics continue to trump biology in wolf management. Idaho and Montana fail to recognize the vital role that wolves play in balancing natural systems. Without wolves, ecosystem function is impaired, and biological diversity diminishes.

From beetles to bears

The presence of wolves affects entire ecosystems, from beetles to bears. Wolves are considered "coursing carnivores," that is, they chase their prey rather than stalk and ambush it (like cougars.) They select for vulnerable prey (aged, sick, injured), which can improve the health of prey populations such as elk.

Wherever wolves chase and eat elk, it increases the biological diversity of the region. By preventing elk from loitering on meadows and fragile stream systems, wolves indirectly benefit a host of species such as beavers, songbirds, herons, and moose that are unable to compete

with elk for forage. Wolves also regulate the effects of medium-sized carnivores. In the Yellowstone ecosystem, for instance, wolves have significantly reduced the coyote population, which, in turn, increased the number of pronghorn in the area. Wolves even effect soil nutrients. Soil microbes and plant quality increase in the presence of wolves because decomposing carcasses enrich soils.

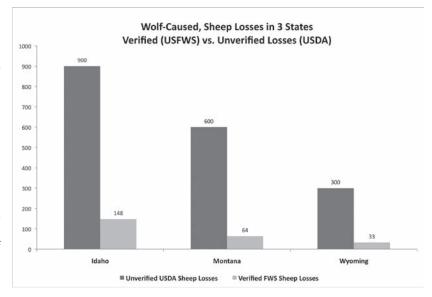
Wolves will be key to ecosystem resilience in the face of climate change. Their presence buffers the effects of global warming by making carrion available year-round for scavengers such as grizzly bears and golden and bald eagles. Yellowstone grizzlies may become especially dependent on wolves with the decline of the white bark pine, a critical food source that is disappearing because of global warming. Wolves are both top carnivores and keystone species in the Rocky Mountains, but they cannot contribute to ecosystem health if they are not adequately recovered and if their numbers are constantly suppressed by hunting. Killing wolves disrupts social cohesion, which can cause packs to disband. Wolf 527's Cottonwood pack fell apart after her death and that of her mate, the alpha male. Killing the alpha pair can also lead to the loss of pups from starvation.

Wolves maintain complex social networks across their landscape, and work as a unit to survive. Highly intelligent and expressive beings, wolves suffer from physical, psychological, and emotional disorders when pack members are lost. Members of wolf packs associate with each other, and packs maintain networks with other packs. For example, biologists in Yellowstone observed the Dark Female, Wolf 716, flow between the Slough Creek Pack and the Cottonwood Pack.

Humans wiped out wolves in the lower 48 states by the 1940s because of misunderstanding and intolerance. Yet Aldo Leopold and others also began to signal a warning that wolves are critical ecosystem engineers on the landscapes where they occur. The loss of these apex native carnivores can negatively affect entire biological systems. Simply put, we cannot afford to lose wolves in the West, because systems become simplified and less productive without them.

Some people object to recovery because they believe that they are in competition with wolves. Ranchers bemoan wolf predation on their livestock and hunters complain about reduced elk and deer herds where wolves roam the landscape. These constituencies often conjure stories about wolves' savagery and propagate mythic tales of their unlimited appetites.

Idaho claims that one purpose for wolf hunting in that state is to reduce wolf conflicts with domestic livestock, but the number of cattle and sheep depredated by wolves as reported by ranchers in the Northern Rockies is highly exaggerated. Two different federal agencies



track livestock losses attributed to wolves—FWS and the USDA's National Agricultural Statistics Service (NASS). While the FWS uses verified reports from agents, NASS relies on hearsay from the livestock industry. The difference between their annual counts is astounding. In Idaho, FWS verified that 75 cattle were killed by wolves in 2010, while NASS reported 2,561 unverified cattle losses, a 3,415 percent difference. FWS also verified that 148 sheep were killed by wolves in Idaho in 2010, compared to NASS's unverified 900 losses, representing a 508 percent difference.

The livestock industry's gross exaggerations of wolflivestock conflicts have little connection with reality. Even NASS's own data show that the real killers of cattle and sheep are not wolves, but a plethora of other factors. According to NASS, the total cattle (2010) and sheep (2009) inventory in the US was 99,628,200. Of that number, 467,100 sheep and cattle, or 0.5 percent of the inventory, were killed by native carnivores such as wolves and coyotes, or domestic dogs. The vast majority died from other non-wildlife related causes, such as illness, birthing problems, weather and disease. As to wolf predation, even NASS's inflated livestock loss numbers show that Northern Rockies wolves account for about 2 percent of alleged livestock losses.

Complaints by those in agribusiness are joined by some in the hunting community, yet those claims are exaggerated too. Prey populations also experience relatively minor effects from wolf depredation. Elk, deer, pronghorn, and moose are affected by a suite of factors, including weather, environmental conditions (i.e., prolonged drought or too much snow), a variety of native carnivores, disease, and especially, overhunting by humans. In several elk population studies conducted in and around Yellowstone National Park, biologists consistently found that human hunters had the greatest negative effect on elk populations. Furthermore, while wolves select for vulnerable age classes and diseased elk, humans select for prime age, breeding animals. Human hunters in the Yellowstone area typically killed female elk in the age range of 6.5 years, whereas wolves killed much older, non-breeding elk that were an average of 14 years old.

The elk population that lives on the northern range of Yellowstone Park are more likely to die from human hunters than wolves. Wolves modulate their prey populations. The long-term effect of wolves on elk is most likely to hold the population at lower levels that mediate other losses from starvation, weather, and other stochastic events. In sum, the wolf predation myth exists so that the cattle and sheep industry and some hunters can justify excessive wolf hunting and lethal control.

Wolves belong to all of us

Wolf management should be based on the best available science and support the public's desire to restore these animals in the West. Wolf hunting conflicts with these goals. In theory, government decisionmakers should transcend political considerations when managing wolves, but decisionmakers come with their own belief systems and values, and not necessarily with science-based knowledge about large carnivores. Steven Primm and Sharon Clark have written that even government scientists hold belief systems that come freighted with values not always based in science, and those values can predominate in scientific decision making.

An increasing number of conservation biologists have noticed that wildlife managers and others often wrongly conflate hunting with conservation. Wildlife agencies view their paying constituents, sportsmen, as stewards of wildlife while ignoring the majority of non-hunters who value conservation. Agencies and others claim that sportsmen fund wildlife conservation with their tag fees, but in reality those funds are often used to administer bureaucracies, not conserve and restore wildlife.

All of the public pays for public lands, and it was the environmental community that helped pass a suite of statutes that benefit wildlife, such as the Wilderness Act, the Endangered Species Act, and the National Environmental Policy Act. Notably, wildlife watchers who visit Yellowstone to view wolves hugely out-spend hunters in the Northern Rockies. A study by John Duffield and colleagues found that wolf watching contributed \$35.5 million to the economies of Idaho, Montana, and Wyoming in one year alone.

Large carnivores, especially wolves, grizzly bears, and mountain lions, evoke a vast range of emotions and symbols, according to Dave Mattson and other Biologists. They contend that because wolves and grizzly bears come under federal management, these species become symbolic proxies for governmental policies and management systems. Wolves and other large carnivores are managed and killed because of policies largely based on political considerations, often promulgated at the behest of vocal, uninformed minorities. It was poorly-construed policies that allowed Yellowstone Wolves 527 and 716 to be killed. It's time to right this wrong for their descendents and for the vitality of the West.

Wendy Keefover has been a leader in native carnivore conservation since 1997 and is the director of WildEarth Guardians Carnivore Protection. She leads an ongoing campaign to expose the federal government's indiscriminate wildlife-killing program, that kills millions of animals each year using aerial gunning, poisoning, trapping, hounding and other nefarious methods. She works on mountain lion conservation in Colorado and New Mexico.

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