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RANCHES WITH WOLVES: HOW STRAIGHTTALK IS THE SALVATION OF
OPEN RANGE IN THE NORTHERN ROCKIES

By

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Ranches with Wolves

Lee Skaw sat in his pickup with the motor off and his loaded deer rifle lying on the seat beside him. He was parked at the top of his summer pasture on the east flank of the John Long Mountains in Western Montana. The woods were dark and quiet around him. A light skiff of snow from the night before blanketed the forest floor. In the stillness and the silence, he waited for the wolf he knew was out here, whose tracks he had seen all winter.

The night before, Skaw and Bart Smith of Wildlife Services set a trap for the wolf Skaw now waited for in his pickup. The trap is a leg trap with rubber on the jaws to protect the animal's leg and a heavy anchor weight to make it difficult to drag. With the trap on its leg, a wolf is easily shot with a tranquilizer dart. The wolf Skaw was waiting for needed a dart because she needed a collar. She needed a collar because she had been eating livestock—but not Skaw's. From Skaw's point of view, this had been a good year as far as wolf problems: He hadn't lost any cattle to them. This trap, he hoped, would help keep his livestock safe and the wolves out of trouble.

In what's been called the greatest wildlife experiment in North America, U.S. Fish and Wildlife Service reintroduced 66 gray wolves into central Idaho and Yellowstone National Park in 1995 and 1996. The reintroduction was one more step in an effort to restore the Northern Rockies ecosystem to something more like what it was before man trapped, shot and poisoned all, or nearly all, of the wolves out of the country in the late 1920s and early 1930s. The reintroduced wolves, originally from southwestern Canada, found suitable habitat and food. They reproduced and dispersed along corridors of wild land, and at the end of 2009, the feds counted a minimum of 1,706 wolves in the Northern Rockies.

As the wolf population has grown, so have the conflicts between wolves and livestock, ranchers and conservationists. Wildlife Services of the Department of Agriculture investigates and confirms wolf depredations of livestock and culls wolves when state agencies authorize lethal control. In 2009, Wildlife Services confirmed that wolves killed 913 cattle and sheep in the Northern Rockies, up from 569 they killed in 2008. Confirmed livestock depredations increased 60 percent, but the wolf population only increased 4 percent. In Montana, livestock depredations more than doubled, and the

Service, in addition to landowners issued permits by Fish, Wildlife and Parks, shot 145 wolves in response to the conflicts, more than in any other state. A total of 272 wolves were killed in the region: 93 wolves in Idaho, 32 in Wyoming and two in Oregon.

In Montana, the Livestock Loss Reduction and Mitigation Program reimburses ranchers for the market price of livestock confirmed to have been killed by wolves. Last year, the program paid Montana ranchers \$141,462 for 365 head of livestock killed by wolves. Many ranchers in wolf country feel the effects of the predators, and the changes to their business have been across the board—they've changed pasture rotations and shrunk their herds, hired range riders to closely monitor their stock and imported guard dogs. As wolves have become a bigger part of these ranchers' lives and businesses, so too have those charged with managing wolves.

“We're trying to find a balance,” said Liz Bradley, wolf specialist for Montana Fish, Wildlife and Parks. “It's a learning process. We try to find what people expect, what their comfort level is, and help them learn to accept wolves as part of our ecosystem.”

As wolves disperse to new territory, such as Colorado, Utah, Oregon and Washington, and as they embed themselves deeper in their existing range, lessons learned from ranchers experienced in producing livestock in wolf country take on a new urgency. A passive approach to the changing ecology has meant hard losses for some ranching operations. In other cases, livestock producers have successfully adapted to their new business scenario, and most important to maintaining working ranches and rangeland wildlife, they say, is communication and cooperation.

The Skaws, near Hall, Montana, have learned to live with wolves and work with wildlife managers, and after five years of losing calves, getting to know federal trappers and wolf specialists and adapting their ranching system, the situation may be stabilizing. Just north of them, in the Blackfoot River Valley, near Ovando, Montana, a coalition of landowners is taking a cooperative approach to ranching with wolves. Wolf populations in the valley have increased significantly in the past few years, though depredations there have been relatively few. By sharing information and resources and learning from situations like the Skaws', the ranchers in the Blackfoot Valley hope to ease the transition. Both situations exemplify what it takes to raise livestock in wolf country.

South of Hall, different approaches yield different results. Beaverhead County, Montana, experiences more depredations than any other county in the state, and one sheep producer tallies the majority of the confirmed losses. In 2009, the ranch lost more than 180 sheep to wolves, due to, in at least one instance, complacency. Farther south, on the other side of Yellowstone, a cattlemen's association that maintains a summer grazing permit in the National Forest in Western Wyoming is finding 10 percent fewer cattle to round up each fall and reporting more confirmed wolf depredations every year. With losses like these, going out of business isn't all that unlikely.

Lee Skaw and his wife, Gayla, ranch on land that Gayla's family homesteaded in 1904, and they're no stranger to wolves. Intermittently, they've seen wolf tracks and heard howls for the last 20 years on the remote west side of their ranch on the flank of the John Long Mountains. And for the past 20 years, wolves haven't been a problem. The packs have been small, three to five wolves, and stayed in higher country above the livestock. But four years ago the Flint Creek Pack denned near the valley floor. The pack became 10 wolves strong, and with a nutritional requirement like that, was bound to find livestock pastures.

"They denned smack in the middle of our best grass," Gayla Skaw said, referring to the summer pasture that's between 6,500 and 7,000 feet in elevation. The pasture is viable for only a few months and provides critical feed while the hay meadows and lower pastures recover from carrying cattle through the winter. But with wolves calling the high portions of the pasture home, the cattle avoided the area. "The cattle weren't up there, and the riparian area [creek bottom] got the crap beat out of it," she said.

Montana Fish, Wildlife and Parks worked with the Skaws to deter the wolves. They set up noisemakers around the den, and flags that were supposed to scare a wolf when they blew in the wind. None of this worked, so they filled the den with junk. The wolves moved out of the den and over the hill to the neighbor's pasture. The pack played hell on the livestock there, and eventually Fish, Wildlife and Parks authorized Wildlife Services to kill all 10 wolves, eliminating the Flint Creek Pack.

The wolf that Skaw waited for in his pickup was a female wolf that looked like the beginning of the second generation of the Flint Creek Pack. She'd been in the area all

winter, and the feds hoped she would establish herself, find a mate and breed. Then she'd be the alpha female, and she'd be wearing a collar, which would mean Fish, Wildlife and Parks could track the pack, know if it was getting into trouble with livestock, and find the wolves if they needed to. Skaw, in his pickup with his rifle, was lending a hand.

Early on, the Skaws came to the conclusion that working with wildlife managers was the only way to handle their wolf problems. When they realized wolves were an established part of the ecosystem and what that meant for raising livestock, they knew they'd need help. They were one of the first in the valley to adopt the cooperative outlook.

“It's the only option we have,” Gayla said, “and we kind of took that approach from the beginning. At least initially, I know a few of the neighbors looked at us like we were kissing up to Fish and Game.”

To a degree, the cooperation has worked. Livestock losses are fewer, the wolves are more tightly managed, and at the end of the day, the ranchers aren't losing money to the wolves like they have for the past four years. It's been a learning process for federal and state agencies as they try to balance wolf populations and livestock densities, and there are still tough issues to be resolved: missing livestock, stampeded-through fences, and added stress on the livestock, which can mean weight-loss, slower weight gain, increased sickness, and aborted fetuses and decreased conception rates.

There's a place in the ecosystem for wolves, the feds say, and working ranches provide critical habitat and feed for wildlife. While wildlife managers are closer than ever to balancing wolf packs and livestock numbers in the Flint Creek Valley, the ranchers there have also learned a few lessons. They've made the transition from a stand-off relationship with wildlife authorities, to cooperating with them, informing them and helping them in their job of managing wolves.

Nearly once a week from 2006 to 2008, the Skaws talked to Liz Bradley on the phone about their wolf problems. But in the summer of 2009, Lee Skaw's problems were few, and he talked to her only once—they visited for a few minutes when he saw her in the grocery store parking lot. Not only did the Skaws not lose any cattle to the wolves last year, but what's more, their cattle are dispersing across the pastures more evenly, grazing

corners they haven't grazed in years, and the Skaws say those old momma cows seem a lot happier, even though there are wolves in the Flint Creek country.

The addition of wolves to the range has changed the relationships between livestock and wildlife and between ranchers and government agents. Both ranchers and wildlife managers have an interest in maintaining the open space of the range, and they both know they have to work together to keep wildlife and working work ranches as parts of the landscape. South of Yellowstone, however, a few ranchers have been slow to adapt.

Wolves have forced change on ranchers and ranching systems throughout Wyoming, Montana and Idaho. The common practice of grazing livestock unattended on remote ranges worked pretty well for most of the last century but is becoming harder with more wolf packs roaming the country. South of Yellowstone National Park, cattlemen of the Green River Valley in western Wyoming operate a ranching system that's been in place since the turn of the last century. It's so traditional that it embodies the romance of the Old West, but without adjustments to compensate for the new ecology of wolves, it may be history.

At 3:30 in the morning, the cookhouse of the Sommers' ranch, on the Green River near Pinedale, Wyoming, is a busy place. Headlights shine through the windows as pickup trucks roll in with horse trailers noisily rocking in tow. The cowboys file in from the dark wearing clean clothes, clean faces. The kitchen fills with the hollow thud of boot heels on the floor, the quiet jingling of spurs, and the smell of coffee. They eat a heavy breakfast and talk about the work ahead of them, the horses they'll ride that day, and the newly-arrived spring of the high country in June.

The cookhouse clears out, and the cowboys saddle their horses in the dark. They ride out into the morning, through the damp sage to resume where they left off yesterday. As first light breaks over the Wind River Range to the east, they arrive at the herd. The cattle have been bedded down all night and are just beginning to stir. They're on the long drive to the summer range, 70 miles up the Green River. The cowboys start the herd at dawn because livestock moves easiest in the cool morning, and a cow has only a certain number of steps in her each day. After the first few cows and calves have ambled to

water, the cowboys turn the cattle uphill. The trip from the valley floor to the high country takes a cow two weeks, and the first ones arrive 30 days ahead of the last stragglers.

Every spring, the 10 ranchers of the Upper Green River Cattle Association assemble their cattle in a communal herd. The Association maintains a summer grazing permit for 7,600 cattle on 130,000 acres in Bridger-Teton National Forest. Ranchers, cowboys, friends and family all help drive the herd uphill in the summer and downhill in the fall. The cattle arrive at the summer range about the middle of June, just as the snowline moves up the mountain and the grasses emerge. In October, when the bluebirds flock for their migration south and the first snows arrive to the Upper Green, the cattlemen bring the herd home.

The cattle instinctually move between summer and winter range, following the same ancient patterns as the wildlife. The wildlife and cattle move uphill in search of fresh forage in the spring and retreat to lower elevations for winter. Twice a year, when the cattlemen move the herd that's already drifting in the direction of the drive, they're expediting a process that's underway. The ranchers call the movement of the cattle and the long drives twice a year the Green River Drift.

"My family's been pushing cows up the Green River since 1900," said Albert Sommers, president of the Association. "We were grazing this country before the Forest Service was even around."

Sommers grazes cattle on the same range his grandfather grazed cattle on, and in some ways the country is becoming more like it was when his grandfather ranched it. On a December night of 1926, Sommers' grandfather was lying in bed when he heard a wolf howl in the cold night. He turned to his wife: "D'you hear that? That was a wolf." The next day, Sommers' grandfather and father trailed the wolf on horseback over the snow, never able to get close to it, only seeing it far off in the distance. Two days later, a federal trapper shot the wolf south of the Sommers ranch, near Pinedale. That was the last wolf on record in Wyoming, the end of a long campaign to rid the country of the predators that had wreaked so much havoc on sheep and cattle ranching in the West. Now wolves have returned to the Upper Green, and Sommers and the ranchers of the Association need to

find a way to handle the predators' effects on livestock by doing something other than what their grandfathers did—leveling a rifle at every wolf they saw.

“I guess my family's come full-circle with the wolf,” Sommers said.

When the herd arrives on the valley floor in the fall, the ranchers sort out the cattle, and each drives his portion home. This will be the first full count of the cattle since assembling the herd in the spring, and the ranchers take stock of how many cattle they lost that summer. Livestock finds a lot of ways to die in the rough country of the Upper Green, and many of the dead remain unfound or eaten, whether depredated or scavenged. But recently, so many cattle have disappeared that the ranchers think their livestock is becoming a larger part of predators' diets.

In the fall of 2008, the Association counted 234 mother cows without calves, which is 10 percent of the 2,342 calves that walked up the river that spring. Ranchers pay for summer grazing allotments on a per-animal basis, called an animal unit month. An animal unit month translates to the amount of feed one cow, with or without a calf, needs for one month, and the rate is adjusted for bulls, which are heavier and need more feed, and yearlings, which require less feed. If a cow loses her calf, the rancher has nothing to sell, and all he has to show for the money spent is a cow that's a year older. From a banker's perspective, losing 10 percent of the calves is a wreck of a summer grazing season.

The Association reported its first confirmed wolf kill in 2000. By that time, grizzly bears, like wolves, had funneled south from Yellowstone, and the Association's first confirmed grizzly depredation was in 1995. Before the grizzlies arrived, the Association lost about 2 percent of its calves during the summer. With grizzlies eating their cattle, the ranchers lost 4 and 5 percent, which was upsetting but acceptable—the ranchers could still make their bottom line. But when wolves hit the Upper Green, the losses jumped to 10 percent, and that is not financially sustainable for the ranchers.

“Hell no, it's not sustainable,” Sommers said. “I don't know what we're going to do. We got nowhere to go with these cattle.”

Every other Forest Service grazing allotment between Yellowstone National Park and the Association's northern boundary, which is 45 miles south, has been retired because of losses to wolves and grizzlies. In 2008, the Association's allotment was the

most impacted in the nation by predators and was reimbursed 30 times for confirmed kills. At this rate, the grazing allotment is too expensive.

Unless the cattlemen find a way to keep wolves and grizzlies from eating so many of their cattle, the Green River Drift will be over for good because one thing's for sure: Wolves aren't leaving Wyoming any time soon. That's been established in court.

The first time the Department of the Interior landed in court over Wyoming wolves was in 1997, one year after the last reintroductions into Yellowstone and Idaho. Judge William Downes of the District Court of Wyoming combined three cases against Secretary of the Department of the Interior Bruce Babbitt for violating the Endangered Species Act by reintroducing Canadian wolves into Wyoming. The Wyoming Farm Bureau Federation, James and Cat Urbigkit and a group of environmental organizations, two of which were the Audubon Society and the Sierra Club, were plaintiffs in the case, Wyoming Farm Bureau Federation v. Babbitt.

The plaintiffs argued that there was a small population of wolves still living in the deep wilderness, and that reintroducing the larger Canadian wolves (*Canis lupus occidentalis*) would wipe out the naturally occurring Yellowstone wolves (*Canis lupus irremotus*). Because this naturally occurring population of wolves existed in the area where the Canadian wolves would be released, the plaintiffs argued, the reintroduction was illegal.

The plaintiffs argued three reasons that the reintroduction violated the Endangered Species Act. First, they claimed that the reintroduction contradicted Congress' intent to protect all members of a species because the reintroduced wolves would kill off and replace the existing wolves. Second, they claimed the reintroduction was a violation of the Department of the Interior's own regulations because the population of Canadian wolves would overlap with the naturally occurring wolves, and the Act expressly protects all individuals where reintroduced (experimental) and naturally occurring (non-experimental, essential) populations overlap. Third, the plaintiffs claimed that the Wyoming wolves would lose Endangered Species Act protection because they would be in harm's way of the Canadian wolves.

Judge Downes ruled in favor of the plaintiffs, that the reintroduction was illegal, a violation of the Act and that Fish and Wildlife Service was to remove all reintroduced wolves. Downes's opinion reeks of distaste for the federal wolf recovery efforts. "The laudable ends aspired to by the wolf recovery plan," he wrote, "cannot justify the Secretary's impermissible means."

Acknowledging the gravity of his decision, however, he stayed his order on appeal, and the wolf round up was postponed while the Tenth Circuit Court of Appeals heard the case. In 2000, the Tenth Circuit reversed Judge Downes' ruling and allowed the reintroduced wolves to stay in Yellowstone. The court interpreted the Endangered Species Act to protect only populations of species, not individuals, and found that the resident Wyoming wolves did not constitute a population. There was, therefore, no violation of the Endangered Species Act by reintroducing Canadian wolves into Yellowstone.

Four years later, Wyoming challenged the federal government again when it charged a Fish and Wildlife Service agent and his assistant with trespassing and littering wolves—as in, if you dump a refrigerator on someone's land, you're littering a refrigerator, and if you dump wolves on someone's land, you're littering wolves. On February 14, 2004, Mike Jimenez, Wyoming wolf recovery coordinator for Fish and Wildlife Service, got the go-ahead from his boss, Ed Bangs, to capture and collar the wolves of the Washakie Pack, which had been getting into trouble with livestock in the rugged Dunoir Valley north of Dubois, Wyoming, just south of Montana.

Jimenez and Wesley Livingston, who was working with the Service as a federal contractor, captured and collared five wolves that day using a variety of techniques. Four wolves were netted with a net gun shot out of the helicopter. Three of those were then immobilized with tranquilizer darts and fitted with radio collars. The men were experienced in handling wolves, and they collared one wolf without sedating it.

Jimenez darted the fifth wolf without using the net gun. The darted wolf clung to a rocky hillside where the pilot couldn't land, so he cowboied the wolf downhill with the helicopter, harassing it to a more convenient location. The pilot then landed on the county road, and dropped off Jimenez to walk uphill to retrieve the wolf. Livingston flew to get the four previously darted wolves and returned. The pilot dropped Livingston off to help

Jimenez and flew off to refuel. While the helicopter was gone, the two men checked the wolves for wounds, took blood and tissue samples, and collared the wolves.

As it turns out, Livingston and Jimenez were on private property. In fact, most of what they'd done that day had been on or over private property; the men captured all five wolves on private property. As Jimenez and Livingston processed the wolves, a rancher drove up the road. The rancher, Randy Kruger, a shareholder and employee of the landowner, Larsen Ranch Company, introduced himself to the men and asked what they were up to. Jimenez and Livingston, standing beside the five wolves lined up like cordwood, told Kruger what they were doing. Kruger had a camera with him and took several photos of the men and the wolves. He never informed them they were on private property, and the conversation ended with a handshake.

Two weeks later, a special agent for the Wyoming Division of Criminal Investigations began investigating allegations by Kruger that Jimenez and Livingston had trespassed during the collaring operation. On March 16, a little over two months after the collaring incident, the State of Wyoming filed charges against Jimenez and Livingston for trespassing on private property and littering wolves. Four months later, on July 16, the District Court of Wyoming dismissed charges against both men. The State of Wyoming appealed the decision to the Tenth Circuit Court of Appeals, and the Tenth Circuit reaffirmed the District Court's dismissal. Both courts found that the men were not liable because they were working within their professional capacity as federal agents, and because private and federal land checkerboard the valley, the court found it understandable why the men and the pilot thought they were on federal land.

Judge Michael McConnell wrote the opinion for the Tenth Circuit and hinted at what he thought to be the deeper significance of the allegations:

“The record evidence supports the suspicion that the prosecution of Mr. Jimenez and Mr. Livingston was not a bona fide effort to punish a violation of Wyoming trespass law, which requires knowledge on the part of a trespasser, but rather an attempt to hinder a locally unpopular federal program.”

As gray wolves dispersed, their population grew and neared recovery. In anticipation of eventually delisting wolves, Fish and Wildlife Service asked Wyoming, Montana and Idaho each to draft management plans for managing wolves upon

relinquishment of federal protection. The Service advised the states on drafting plans that would satisfy federal recovery standards. Several times, the agency sent the Wyoming Game and Fish Department letters advising it that its management plan was inadequate to ensure the recovery of gray wolves in the state. Most problematic was Wyoming's insistence that wolves outside of portions of the northwest corner of the state would be classified as predators, like coyotes, foxes and raccoons, legal to kill any time, for any reason, without a license or permit.

Fish and Wildlife Service didn't think predator status gave wolves outside of Yellowstone and the Teton Mountains area a very good chance of survival. Furthermore, Wyoming interpreted a pack of wolves to mean five wolves. Montana, Idaho and Fish and Wildlife Service all agreed a pack was six wolves. Wyoming was also reluctant to manage for enough wolf packs outside Yellowstone. Eventually, in 2007, the Service approved Wyoming's wolf management plan. Wolves outside of the northwest corner would carry predator status, and the area of protection would be malleable. The state agreed to the Service's request to manage for a total of 15 wolf packs and at least seven packs outside Yellowstone.

In late March 2008, the Service delisted gray wolves from the Endangered Species List and gave each state responsibility for its wolves. Over the next six weeks, 16 wolves found themselves downrange of Wyoming guns. All 16 were legally killed, but for some, that was too many dead wolves.

A coalition of environmental groups led by Defenders of Wildlife filed charges against Dale Hall, director of Fish and Wildlife Service. In July 2008, District Judge Donald Molloy of the District Court of Montana granted an injunction to plaintiffs in the case, Defenders of Wildlife v. Hall, and reinstated Endangered Species Act protection for wolves. One of the plaintiffs' arguments was that Fish and Wildlife Service had erred when it approved Wyoming's 2007 wolf management plan. Judge Molloy agreed and found that the agency's approval of Wyoming's plan was "arbitrary and capricious." So wolves were back on the list, and Wyoming was back at the drawing board.

Wolves carried Endangered Species Act protection for about a year before the Service again delisted them in Montana and Idaho in May 2009. This time, however, it

did not delist them in Wyoming and denied the state management responsibility of its wolves, which is why there was no wolf hunting season in Wyoming last year.

Hunters killed 72 wolves in Montana and 186 of the 220 quota in Idaho during the 2009-2010 season. In Montana, revenues from hunting licenses totaled \$325,916. The Federal Aid in Wildlife Restoration Act of 1937, commonly known as the Pittman-Robinson Act, matches hunting license revenues nearly two to one for wildlife management. The hunting season generated about \$1 million in wildlife management funds. Last year, Fish and Wildlife Service spent \$3.7 million managing the roughly 1,700 wolves of the Northern Rockies, and it estimates spending \$4.2 million in fiscal year 2010. The hunting season, allowable as long as wolves remain off the Endangered Species List, provides agencies with added money to manage wolves. Some ranchers, however, weren't too excited about the hunt.

Kathy Konen's family has been ranching outside Dillon, Montana, for more than 80 years and has tried to change with the changing ecology, the addition of wolves to the ecosystem. They've hired more riders to monitor their sheep, they've changed their pasture rotations, and they've put guard dogs with the sheep. Changing pasture rotations has been a difficult adjustment, and wolves will take sheep when the riders sleep. Even the 180-pound guard dogs have a tough time with wolves.

"They're big old boys" Konen said. "They'll eat a bag of dog food a week, and they got no problem with a coyote. But they're no good against three or four wolves."

The Konens have had dogs killed and mauled, and have a hard time treating the wounds because a wolf bite is so septic. And if guard dogs have trouble with wolves, sheep don't stand a chance. Sheep spend most of their time looking for an excuse to die, cattlemen say, and a shepherd spends nearly 24 hours a day trying to keep his sheep alive. The Konens have had wolves in their sheep since the reintroductions into the Park, about 15 years ago and a little over 60 miles to the east. But last year the situation became dire.

In August 2009, wolves killed 120 of the family's Rambouillet rams and left only 14 standing. The herd was the product of more than 80 years of breeding. Uneaten sheep carcasses lie scattered over acres, and it seemed like every predator in the zip code followed the rank smell upwind in search of something to scavenge. Cleaning up the

mess, spreading lime and hauling carcasses away, was a breathe-out-of-your-mouth affair.

Six weeks later, wolves killed 23 of Konen's ewes and lambs. To say the ranch has had wolf problems underscores the severity of the situation; the family will have to replace an entire component of their ranching system, something they may not be able to do. She thinks there are too many wolves in some areas, that they need more controlling. But she's not sure a hunting season is the answer.

"I guess it's a start," she said, "but they [Wildlife Services agents] spend so much time and money and effort collaring these wolves that to have a bunch of hunters go out and shoot them seems like a waste. I just don't agree with the philosophy."

Gayla Skaw agrees with Konen and has her doubts about the hunt. Skaw doesn't have a problem with wolves in the wilderness, and the last thing she wants to do is buy a wolf hunting license. "We've given enough money to the wolf fund over the years," she said.

There's also another reason she worries about the hunt. Two years ago, Bart Smith, a trapper for Wildlife Services, was at the Skaw's ranch to thin the Flint Creek Pack. In the failing light of a winter afternoon, the wolves he sought finally appeared. He shot one of the wolves, what he thought to be a sub-adult but which turned out to be the alpha male. Without a leader, the pack dispersed, and reports of wolves eating livestock in the area erupted. The dispersing wolves, with no social structure or pack to hunt with, spread through the valley as loners. Livestock was their easiest meal, and the rogue wolves got into a lot of trouble.

Wildlife managers don't want to see the undoing of social threads that dispersed the Flint Creek Pack. Trappers like Smith have a hard enough time knowing which wolf to shoot out of a pack. A hunter probably won't be thinking about preserving a pack's social structure, but managers sure think about it.

Wildlife authorities want socially-stable wolf packs that are wearing collars, and hopefully a little scared of humans and civilization. They want to know where the wolves are, what they're doing, and how many of them there are. Dispersing wolves that roam the countryside are hard to manage and tend to get into trouble.

The wolf Lee Skaw waited for in his pickup showed up that morning. She walked in front of his truck, and he could have ended it with his rifle.

“I thought about just shooting her right there and calling Bart to come get his trap,” he said. “Telling him, I got a hunch she’s not in the country any more. But I didn’t. I watched her walk right into the trap.”

After Skaw watched the wolf spring the trap, he started the pickup’s motor and drove down the mountain to where he could use his cell phone. He called Bart Smith and told him they had their wolf. Smith said he’d be right over.

They drove up the mountain in Smith’s pickup and found the wolf in a creek bottom, downhill of the trap site. She was hiding among the willows, not moving much with the cumbersome trap. They slowly got out of the pickup and watched her, waited for a shot at her. When she came into view, Smith darted her. The two men got back in the pickup and waited for the drugs to take effect. Half an hour later she was lying on the snow and had quit raising her head.

They climbed out of the truck and started toward the wolf. That’s when Smith informed Skaw that they were working as a team that day, that Skaw was going to get some first-hand experience at the job of a government trapper.

“You’re the scruffer,” Smith said to Skaw. “You hold her down by the scruff of the neck to keep her from biting me while I put the collar on her.”

But Skaw wasn’t all that thrilled about lending a hand with the darted wolf. That’s why we have government trappers, he said, to do the job of government trappers.

“Nope,” Smith said, “This is the way we do it when there are two of us.”

The darts contain a general anesthetic that allows agents to do what they need to the wolf. The wolf is sedated but not unconscious; rendering an animal unconscious through sedation, and ensuring it regains consciousness, is a tricky process that veterinarians do their most to avoid because of the risk. Wildlife Services agents estimate the dosage for each wolf based on the animal’s weight, and since getting a wolf to stand on a scale isn’t an option, trappers make a judgment call in the field.

Skaw hesitated at the opportunity to scruff the wolf because she was awake, because he was trusting that Smith gave her enough drugs to keep her quiet. He’s been around livestock all his life and knows that drugs can have strange, unintended effects on

animals, sometimes the opposite effect. If a young horse is nervous and agitated about entering a horse trailer, and gets a syringe full of sedative, some horses become hysterical. The possibility of the sedated wolf coming to life in a fury and grabbing something with her teeth didn't seem all that remote. Skaw didn't want to get wolf-bit, didn't have much interest in scruffing a wolf, but Smith wouldn't hear it. The wolf needed a collar, there were two people to do the job, and this was clearly the opportunity to do it.

If you needed someone to hold the head of a wolf while you put a collar on it, Skaw would be the man for the job. He's a little over six feet tall, narrow at the waist, broad across the shoulders, and spends the winter working in the woods felling trees, cutting firewood and hauling logs. He's fit and strong and can handle animals. Even though he was nervous, scruffing the wolf turned out to be the easy part.

The anesthetic inhibits the wolf's ability to regulate its body temperature, and the sedated, collared wolf lay on the snow. If they left her there, she would die of exposure. To get her off the snow, they had to carry her 200 yards. She was a big wolf, about 100 pounds. Skaw carried the front end, Smith carried the back. Carrying the dead-weight wolf over the snow was no easy task, Skaw trying to keep the mouth pointed away from him, as far as possible from his chest and neck.

They set her on the soil, and Skaw was happy to finish the job. But Smith said there was one more thing to do: take a picture of Skaw with the collared wolf. Skaw reluctantly agreed. He straddled the wolf, lifted its head and they both faced the camera. Smith took the picture, and they were done with this wolf.

"If I look scared," Skaw said, "it's because I am. And if it looks like the wolf is looking at the camera, it's because she is."

Teamwork between wildlife managers, government trappers and ranchers hasn't always been the norm. But lately, each is finding their goals more easily accomplished through cooperation. The form of cooperation that's most important, they say, is communication.

The ranchers of the Upper Green River Cattle Association near Pinedale, Wyoming, employ six range riders to live with their cattle on the high summer pasture. From June to

November, the cowboys live in remote camps in the National Forest with a string of saddle horses and a radio to call the boss at night. The Association's 130,000-acre allotment is divided into four large pastures, which makes for a lot of country without fences. Each rider is responsible for a portion of the herd and range, moving and dispersing the cattle to evenly use the grass and water. The riders do most of their work alone, and communication can be sparse.

The Association built the rider camps in the 1970s and stationed cowboys up there to better use the range and keep a closer eye out for sick and lame cattle. Fifty years before the riders arrived to the Upper Green, government trappers and ranchers nearly eradicated wolves from the country. But when predators started eating the Association's cattle in the late 1990s, the rider job changed. At edge of the wilderness, just a night's jaunt south of Yellowstone for a wolf, the riders became lifeguards of the livestock, and recovering carcasses of depredated cattle for federal agents to confirm wolf kills became part of the job.

Bobby Gilbank has ridden for the Association for 13 years and with his gray, handle-bar mustache and high-heeled boots, doesn't look much different than cowboys did a hundred years ago. He's 70 years old, wears a bone-handled skinning knife halfway down the outside of his heavy leather chaps, and sleeps with a loaded .30-30 lever-action rifle a foot above his head. With his dog, Booger, and his string of seven hardy geldings, Gilbank watches over 2,000 cattle grazing the Association's Fish Creek Unit, roughly 40 square miles of dark pine forests, white-trunked groves of quaking aspens, and grassy parks with meandering streams. The Fish Creek Unit has experienced more depredations than any of the Association's other units, and by the last week of September 2009, Gilbank had found 40 kill sites, which is about four bone piles a week

Pressure from wolves means Gilbank leaves a bunch of cattle in belly-deep grass with spring water nearby and returns the next morning to find the cattle gone and a swath of deep tracks leading down the mountainside. The cattle may be five miles downhill of where he left them; they may be exhausted from the chase; they may be scattered across the range from hell to breakfast. When Gilbank finds cattle that have swapped looks with a predator, he can usually tell from a distance. The cattle will be bunched tightly, none dispersing to graze or lower its head to eat, and they sure won't be happy to see his dog.

Regrouping the herd can take days of hard riding, but Gilbank's least favorite part of the job is recovering carcasses.

A kill site is never pretty. When wolves kill something, they tear the hamstrings out of the hindquarters, rip open the throat and latch onto any appendage they can get their mouth around. They'll chew the nose off, clean out the eye sockets, and open the neck through the dewlap. They pull open the soft skin of the belly and the anus, and all Gilbank usually finds are the hooves several feet apart, the cleaned-off spinal cord and rib cage, and the pink, bare, empty skull with the lower jaw long gone. Sometimes, he only finds a yellow ear tag on a scrap of hide.

A Wildlife Services agent has to see evidence of predation to write a rancher a reimbursement slip. A bloody ear tag could mean the animal died of sickness and was scavenged after death. The Association loses enough cattle without seeing any sign of them that Gilbank tries to recover what he can. The carcass proves the predator's role, and ravens often betray dead livestock hidden in willow thickets. He'll weave his horse down through the tall brush of a creek bottom, making loud noises to flush bears ahead of him. If he finds a kill site he'll slide his lariat rope over a leg or neck of the carcass and skid it out of the thicket. The carcass will snag and grab the willow stems, the horse will struggle in the mud, and the carcass may be gone in the morning no matter if it spends the night in a brush-choked stream or 50 feet from Gilbank's cabin.

Dragging dead livestock from creek bottoms is a tough job for Gilbank and his horse, but finding one in dry timber or among the sagebrush isn't always much more fun. More than once, Gilbank has chased grizzlies off dead cattle, and more than once, a sow grizzly standing on her back legs has turned him around in his tracks, discouraging him from further investigation.

"It ain't a job for the faint of heart," Gilbank said. "It ain't for someone who doesn't know the sun sets in the west, and it ain't for someone who can't take care of himself out here in the wild."

Peter Brown rides for ranchers in Montana's Blackfoot River Valley. He watches over cattle in various pastures throughout the valley, covering a range of about 40,000 acres. His job bears the same title as Gilbank's, but the situations are as different as the men.

Brown is half as old as Gilbank and stops at Missoula coffee shops some mornings before work. Brown covers his range in a pickup truck with a dirt bike in the bed and carries a cell phone. Gilbank carries matches in the breast pocket of his shirt to light the forest on fire if he gets injured on the job without a way to make it back to camp. He sees one car a week on the Forest Service roads around his cabin, and he thinks the mountains are filling with people. Gilbank's rider job is a relic of the 20th century, Brown's is a harbinger for ranching in wolf country in the 21st-century.

In the Blackfoot Valley, just north over the Garnet Mountains from the Flint Creek Valley, wolves are making their first passes through livestock since the predator's reintroduction 15 years ago. One wolf pack called the valley home in 2007. By the end of 2008, three packs had established territories in the surrounding mountains. To the north of the valley, the Bob Marshall Wilderness Complex, 1.5 million acres of rugged wolf and grizzly habitat, abuts Glacier National Park to form a corridor of wild land stretching to the Canadian border.

On the doorstep of so much wilderness, the ranchers in the Blackfoot Valley expect wolves to become a part of ranching for them. Although there have been several confirmed kills in the valley, the situation is nowhere near as bad as in the Flint Creek Valley where federal trappers killed four wolf packs in the last two years—packs, not wolves. In anticipation of wolves moving into the valley, Brown patrols the range.

He does not, however, work for a cattleman's association; he works for the Blackfoot Challenge. The Challenge is a land-owner based organization that provides a platform for the community to address issues on a watershed scale. The Challenge has dealt with the invasion of noxious weeds in the valley, stream-bank erosion on the Blackfoot River and its tributaries, and bears tipping over bee hives and garbage cans. It's been lauded by the White House for its collaborative approach to addressing community issues, and it's received hundreds of thousands of dollars in grant money for the same reasons. Now, it's preparing for wolves.

The communication infrastructure of the Blackfoot Challenge equips ranchers with one more tool to handle the effects of wolves on producing livestock. The ranchers all work together to the same end: keeping the landowners on the land and conserving and managing their resources for landowners after them. They work as a cooperative and

will incorporate wolves into their business. Being a part of the Challenge, they hope, will make the transition smoother.

David Mannix and his brother graze cattle in pastures scattered over the Blackfoot Valley and have been a part of the Challenge since 2001. The Mannix family homesteaded the land in 1882, and three generations of the family live on the place now. The ranch summers cattle in the high country above the valley and winters them at home. The Mannix brothers haven't seen an increase in death loss since wolves denned in the nearby mountains, but Brown has caught wolves in with the cattle and seen wolf tracks in the cattle trails.

In 2009, the Challenge hired Brown with grant money. He's the ranchers' eyes on the range. He lets them know what's going on out there with their cattle. The information helps them raise livestock. With more information, Mannix said, the better he and the other ranchers understand the dynamics of the range.

"It's sped up our learning curve, that's for sure," Mannix said. "Having Peter out there means we have more facts. And having more facts, having more knowledge, we can better figure out what to do."

Along with cattle, Brown watches wildlife. He looks for wolf tracks, wolf scat and watches the movement of deer and elk. If wolves are shadowing elk near cattle, Brown will tell the landowner, and they'll move the cattle to a new pasture. The density and distribution of the wildlife affect how ranchers distribute their livestock, and they suspect ungulate density directly relates to wolf distribution and activity.

Cattle die each year from causes other than wolf predation. If Brown finds a carcass when there's elk around the cattle or he's seen sign of wolves recently, he'll call the owner of the livestock to bring a trailer to remove the dead animal. Rough country doesn't always make retrieving carcasses possible, but having Brown out there might prevent the smell of beef from wafting over the hills, might keep the cattle safer.

To Mannix, the issue of wolves and livestock is like other issues confronting ranching. The ranchers must adapt to the changing climate they work in, and preparing for future issues, the way the Challenge has for wolves, makes the adaptation faster and easier.

“The long of it,” he said, “is that, first we need to be good stewards of the land, and, second, that we communicate to the general populous that we’re being good stewards, that we’re taking care of the land. And the short of it is, we hire people like Peter.”

Livestock producers in wolf country are operating in a new landscape, and for an industry so tied to its natural environment and local ecosystem, failure to adapt makes ranchers’ jobs tougher. Doing business the way their grandfathers did might not produce the same results it did in the past. The Mannix family of the Blackfoot Valley first cut earth on their present-day ranch nearly 130 years ago, but today they’re taking proactive steps in anticipation of wolves, to minimize their losses and keep the family on the land. The Skaws ranch on land that Gayla’s family homesteaded more than a hundred years ago, and over the last five years they’ve had to shrink their herd by half the cows, memorize the phone numbers of government wolf personnel, and help their neighbors come together to help Fish, Wildlife and Parks manage local wolves. Both wildlife managers and ranchers believe these changes will help keep these families on their ranches.

Relationships on the range are changing. Managing wildlife and livestock to create stable, working landscapes in today’s political and economic environment means those interested in maintaining the range must work together. Communicating and cooperating are essential to these evolving relationships. Wolves wear collars. Cowboys carry cell phones. Communities agree to work together, to talk and share and plan.

“We all bring values to the table,” Mannix said. “Those values are as different as the individuals, and they’re as complex, as well. But I think one value that we all need to agree to maintain is the value of discussion.”

The Konens started raising sheep near Dillon about 1930, just as the campaign to exterminate wolves was ending. They first had wolves through their sheep in 1996, when the Nez Perce pack escaped from a pen near Yellowstone. One wolf climbed out of the enclosure, ripped open the fencing to spring the others, and the pack wandered to the Konen’s ranch. About five years later the ranch lost 45 ewes to wolves, and every year since they’ve had wolf problems. Although they’ve added range riders to the payroll and

put guard dogs with their herd, they're still losing too many sheep—the changes haven't been enough to prevent significant losses.

The Konens' wolf problems last year started at the end of June when three wolves, called the Blacktail Three, killed 12 of the Konens' sheep in a large pasture southeast of Dillon. The 28,000-acre pasture abuts the Robb-Ledford Wildlife Management Area, and for three years, wolf problems in the pasture have been chronic.

“We call it the buck pasture,” Kathy Konen said. “It's about 45 miles from the ranch, and I don't think there's a tree on it.”

At the end of July, the Blacktail Three killed 10 more sheep in the pasture. Three days later on July 25, they killed another 16 sheep. Wildlife Services credited the three wolves with 38 sheep depredations, and that was enough to warrant their elimination. Wildlife Services trapper Graeme McDougal lured the three wolves into range using a predator call and shot the gray and wounded one of the black wolves. That left one black wolf, and that was the end of the Blacktail Three.

Wildlife Services suggested the Konens remove all their sheep from the pasture. The Konens brought home most of the herd, and with the herd came the guard dogs and the shepherds. But they left 140 rams there. Wildlife Services told the Konens that those rams were looking like easy targets, and the agency recommended the Konens take measures to protect the sheep, such as string electric fencing, or bring them home. The Konens said they couldn't fence the entire pasture, and Wildlife Services said don't fence the entire pasture, just fence the area the sheep are grazing. The Konens wanted to know how they would be compensated the extra cost of the labor and materials. They didn't hang any fence or leave a dog or rider with the sheep. A month later on August 18, the Konens found all but 14 of the 140 rams dead.

Two days later, on August 20, McDougal found the Centennial Pack less than half a mile from the pasture strewn with sheep carcasses. He shot a gray adult male, reducing the Centennial Pack to two gray adults and five pups. This was the pack's first conflict with livestock in 2009. Two months after it routed the Konens' herd of rams, on October 18 the pack killed 10 of the Konens' lambs and mortally wounded 13 others. In response, McDougal shot one of the pups two days later. The pack had increased, he noticed, by an adult black wolf, and there was no telling if it had dispersed from the Blacktail Three or

elsewhere. The next day, McDougal shot at one of the pups, possibly wounding it. They never saw that pup again.

On November 16, McDougal shot the black wolf and one of the gray adults. The Centennial Pack remained at one wolf for another week before McDougal shot the lone black wolf in the upper stretches of the Ruby River. That ended six months of confirming sheep depredations, days and weeks searching by air and foot, and killing wolves that had been killing the Konens' livestock. Two wolf packs and more than 180 sheep later, McDougal hopes the Konens learned something.

"Just like anything else," McDougal said, "there are a certain percentage of people that can't connect the dots, who fail to give in at all. But there's sure nothing new about that."

McDougal has spent most of his life on the land. He was born and raised in Dillon and been outside working with animals since he was old enough. For 15 years, he worked as a cowboy living alone in a remote camp, not unlike Bobby Gilbank's on the Upper Green. He started working as a government trapper in 1994, and his wife remembers the sorry day he took the job.

"He signed on with quite a bit of remorse," Beverly McDougal said. "He was a free trapper."

"By God, the last of a dying breed," Graeme said.

"Yes, he was. Making no money, he was a free man. Then he had to go to work for the government. The *government*."

"Now I'm nothing but a G-man," Graeme said. "It's enough to make you cringe."

McDougal's background helps him understand the local ecology and the problems wolves pose to raising livestock. He knows that pregnant wolves den up a month or so after St. Patrick's Day, about the same time wintering elk herds break up for cow elk to have their calves in solitude. While females whelp and raise their pups, male wolves often assume sole hunting responsibility. They usually hunt alone and sometimes kill more than they can eat to ensure their ability to feed the females. These surplus killings sometimes take the form of double-digit sheep losses and can also occur in late summer and early fall when the pups are on an all-meat diet and strong enough to travel.

“Late August through October can be kind of a wreck,” McDougal said.

McDougal knows the seasonal cycles of the wildlife and the flora. He knows where there’s open water in the winter and what a -20 degree cold snap means for the animals and the range. His knowledge of the land helps him do his job, and his knowledge of Man’s role in the land and ecosystem helps him understand why he does his job.

McDougal’s father worked for the Forest Service as a district ranger in the early 1960s. As a ranger, his father travelled into Yellowstone National Park and culled elk from the Northern Yellowstone Elk Herd for the National Park Service. Each year, rangers shot between 1,200 and 1,800 elk to keep the elk population balanced with the carrying capacity of the ecosystem, about 6,800 to 7,500 elk, according to McDougal. In 1968, the Park Service turned over culling responsibility to outfitters as a stimulus to local businesses. The outfitters let the elk population soar to nearly 20,000 head. When wolves showed up in the 1990s, they found elk unchecked by a significant predator presence. With predation, the elk population neared where it had been before 1970.

“The Northern Yellowstone Elk Herd is stable since 2005,” McDougal said. “It hasn’t varied 800 elk since 2005.”

Like most government trappers responding to livestock depredations, McDougal spends half his time dealing with people, and the other half dealing with animals. When wolves kill livestock, he tries to keep as level a head of the situation as possible, working to understand the livestock producer and the nature of their operation, considering the seasonal distribution of the deer and elk and wolf packs in the area. Most of all, he understands the impact wolves are having on livestock production in Beaverhead County, which experienced more wolf depredations of livestock in 2009 than any other county in Montana.

“Typically, in beautiful Beaverhead County,” he said, “I confirm 20 to 30 cattle [depredations], some years more. As far as sheep, on the average, probably 50 head. That being said, there’s one producer who imports 25,000 head every spring. There are over a hundred thousand mother cows in the county year-round.”

After he confirms a wolf kill, often as not, McDougal has to find some wolves. From the air, he's either in a helicopter or a small plane, called a Piper Cub and favored by Alaskan bush pilots. If he's not in the air, he's on foot or on horseback. McDougal doesn't move like a stove-up cowboy; he moves as though he could walk to Mexico today if you gave him two hours to pack. He doesn't use a snowmobile because of the engine sound, and he thinks the wolves are catching on to the sound of an airplane, maybe the smell of fuel. On foot, he can move quietly, but on a horse, he can cover a lot more territory.

In classic mountain man fashion, McDougal sets out to look for wolves on a horse, leading "Bud the Wonder Mule." He finds wolves with a radio transmitter, does what he needs to do and packs dead wolves out on Bud. Culling and gathering wolves in this way means a lot of working alone in the wilderness, and it's about the last job you'd want to give to the unprepared or foolhardy.

Working from the air can be just as demanding. The pilot of the Piper Cub has logged more than 17,000 hours of low-level agriculture flight time. McDougal is strapped into a harness, and out the open door of the plane, shoots wolves with an elk rifle. On average, when McDougal has a wolf in the crosshairs, the plane is about 13 feet above the ground.

"Just because of the dynamics of what's going on," McDougal said, "I can't be worried about what he's [the pilot] doing, and he can't be worried about what I'm doing. Because if I screw up and shoot the prop, whatever's on the ground a hundred feet in front of us we're going to hit, going nowhere but straight into the ground."

On November 25, as the plane lowered to just above the sagebrush and McDougal shot the black wolf from the Piper Cub, the Centennial Pack was history and the territory was open to more wolves. Wolves have been in and out of the area since they were first flown here from Canada, and biologists estimate wolves will move into unoccupied territory in 284 days on average. McDougal isn't worried about the territory lying unoccupied. He's more worried about what the agencies can do to help mitigate conflicts between the Konens' sheep and the next wolves to arrive. Wildlife Services and Fish, Wildlife and Parks are meeting this spring to consider non-lethal controls, such as electric fencing, and the agencies are hoping for some help from the Konens.

Without some cooperation, the Konens might find another herd of their sheep ripped to pieces by wolves. Then they'll call McDougal to do something about it, and he'll have to find and shoot the guilty pack. New wolves will fill in the territory, and the cycle will begin again. The Konens can't afford to feed a hundred sheep a year to predators. McDougal doesn't want to shoot wolf pack after wolf pack, and he doesn't want to clean up pastures strewn with dead sheep. He wants to get collars on the next wolves and wants the Konens to do what they can to keep their sheep from being easy targets. He hopes there's a wolf hunting season in 2010, and he hopes the agencies can develop neon collars to prevent hunters from shooting collared wolves. Mostly, he wants small-scale management of wolves, specific to the habitat and livestock density.

Hard lessons about raising livestock in wolf country usually take the form of dead animals. Cooperating and communicating helps ranchers produce their animals and helps McDougal do his job. Fewer conflicts with livestock will mean killing fewer wolves, and to McDougal, the fewer wolves he kills, the better.

"The biggest miracle I've seen in my lifetime," McDougal said, "is that Man has put wolves and grizzly bears back into the wilderness."

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